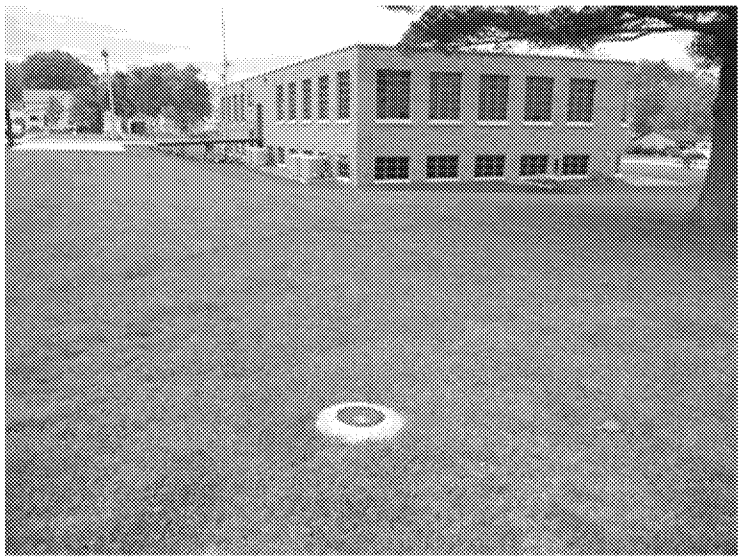
SUPPLEMENTAL PHASE II ENVIRONMENTAL SITE ASSESSMENT
FORMER CLINTON ENGINES SITE



Former Clinton Engines Site
605 East Maple Street
Maquoketa, IA 52060

Prepared For:

City of Maquoketa
201 East Pleasant Street
Maquoketa, Iowa 52060

With Assistance From:

East Central Intergovernmental Association
7600 Commerce Park
Dubuque, IA 52002

Prepared by:

IMPACT7G

9550 Hickman Rd, Ste 105
Clive, Iowa 50325

July 30, 2019

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APPENDICES

1.0 EXECUTIVE SUMMARY

Impact7G, Inc. (Impact7G; see Qualifications in Appendix A) was retained by East Central Intergovernmental Association (ECIA) to perform a Supplemental Phase II Environmental Site Assessment (ESA) for the City of Maquoketa Former Clinton Engines site, located at 605 East Maple Street in Maquoketa, Iowa, hereinafter referred to as the "Property." The Property has a history of being used for industrial purposes in the manufacture of small internal combustion engines. A review of the historical information indicated the presence of VOCs that are consistent with solvents used in manufacturing operations. The Property is currently enrolled in the Iowa Department of Natural Resources (IDNR) Land Recycling Program. Per IDNR's letter dated March 26, 2018, supplemental site assessment activities are needed to investigate the full nature and extent of the identified chlorinated solvent contamination in association with the Property. On May 13, 2019, Cabeno Environmental Services, under the direct supervision of a geologist from Impact7G, advanced 12 temporary groundwater monitoring wells denoted as B-35 through B-47 to a maximum depth explored of 79-feet below ground surface (bgs) using a GeoProbe® SP16 screen point sampling system. On June 18th through June 20, 2019, Below Ground Surface, Inc (BGS, Inc) under direct supervision of a geologist from Impact7G advanced an additional seven screen point sampling points denoted as B-50 through B-57.

1.1 Findings/Results

This Phase II report has compiled all groundwater data from the previous 2013 and 2014 groundwater sampling and analysis events with the 2019 groundwater data. VOCs constituents were compared to the risk-based standards outlined in *IAC 567 Chapter 137: Iowa Land Recycling Program (ILRP) Statewide Standards*. The complete laboratory analytical reports from the 2019 assessment are presented as Appendix B. Chlorinated solvents including trichloroethylene (TCE), cis 1,2-dichloroethylene, 1,2-transdichloroethylene, toluene, 1.1.2-trichloroethane and vinyl chloride concentrations exceeding the Iowa Department of Natural Resources (IDNR) non-protected groundwater source action levels have been identified up to 0.64-miles to the northeast; 0.12-miles to the northwest; 0.06-miles to the west and 0.2-miles south southeast of the Property and to a maximum depth explored of 79-feet below the ground surface. A complete listing of impacted parcels is presented in Appendix C, Table 1. Potential chlorinated solvent exposure pathways into affected properties include groundwater vapor to confined space receptors (i.e., basements, sanitary sewer mains and service lines), sub-slab vapor accumulation and permeation of chlorinated solvents into water mains and service lines.

1.2 Professional Opinion

Based on the findings and conclusions resultant of data collected during the 2013, 2014 and 2019 groundwater investigations, the historic operations of the former Clinton Engine Works had contributed to concentrations of chlorinated solvent contamination in groundwater exceeding the non-protected Statewide Standards. As such, Impact7G recommends the following actions and monitoring efforts:

- Continued monitoring from the onsite permanent groundwater monitoring wells MW-1 through MW-8.
- A draft corrective action design report (CADR) to evaluate at least three groundwater remediation strategies.
- Vapor intrusion assessment to discern risk to residential properties located along South Clark and South Matteson Street between Locust and Pleasant Street and at the residential trailer park located east of the Property.
- Complete a detailed assessment of water wells within the impacted groundwater area.
- Evaluation of the need for specifying engineering controls associated with new construction on parcels that exhibit potential exposure pathways associated with identified contaminants.
- Evaluation of the need for institutional controls by way of city ordinance that prevent existing non-residential zoned areas affected by the identified contaminants to be rezoned as residential unless engineering controls are designed into proposed developments that eliminate potential groundwater vapor exposure pathways.

2.0 INTRODUCTION

2.1 Purpose

The Property has a history of being used for industrial purposes in the manufacturing of small internal combustion engines. Chlorinated solvent contamination has been documented in association with these historic uses. The IDNR is requiring groundwater sampling at and in the vicinity of the Property to better understand the vertical and horizontal extent of contamination and to evaluate potential exposure pathways.

2.2 Problem Statement

The City of Maquoketa is evaluating the Property with the intent of better understanding the extent of groundwater contamination and to evaluate potential exposure pathways. Data obtained will also be utilized to evaluate land reuse options for the site. Plumes are still being defined but an attempt will be made to locate and determine the status of any water wells that might be within the defined affected area.

The ECIA Brownfields Redevelopment Project requires that the environmental data collected are of the appropriate type, quantity, and quality to support project decisions. Project data quality objectives (DQOs) were identified in the approved *Phase I & Phase II Environmental Site Assessments DQOs and Generic Quality Assurance Project Plan* dated November 23, 2016. The Environmental Protection Agency (EPA) Brownfields Phase II Work Plan (dated August 27, 2018) for this supplemental assessment activity was approved by EPA on April 4, 2019. The Work Plan serves as an amendment to the *Phase I & Phase II Environmental Site*

Assessments DQOs and Generic Quality Assurance Project Plan dated November 23, 2016.

Evaluation of environmental impairment is conducted using the regulatory programs outlined in the Iowa Administrative Code (IAC). Evaluation of environmental impairment involves risk-based evaluation and response action through the voluntary Land Recycling Program (LRP) as set forth in IAC 567-137(457B) *Chapter 137: Iowa Land Recycling Program and Statewide Response Action Standards* (IAC 137).

3.0 BACKGROUND

The Property consists of approximately 19.7 acres of land located on the southeast corner of East Maple Street and South Clark Street in Maquoketa, Iowa. The Property is located within a mixed-use area consisting of residential, industrial, agricultural and commercial land. The Clinton Engines Museum building is located on the northwestern portion of the Property.

In approximately 1945, the Maquoketa Company began operations at the Property producing metal cutting machines and other industrial products. In 1950, Clinton Engines moved its operations to the Property to manufacture small internal combustion engines. They operated at the Property from approximately 1950 to 1985, when they filed for bankruptcy. The Property was deeded over to the City in 2000.

According to a 1999 Phase I/Phase II Environmental Assessment completed for the former Clinton Engines site, the Property was found to be contaminated above regulatory action levels for volatile organic compounds (VOCs) that included benzene, naphthalene, dichloroethylene, toluene, trichloroethylene, and vinyl chloride. Subsequent 2006 sampling activities again encountered groundwater impacts above the IDNR remediation objectives. In collaboration with the IDNR, the City executed approved work plans/investigations in 2013 and 2014. The intent of these investigations was to determine whether historic use of the Property has affected the environmental integrity of the area by determining the extent of contamination present in soil, groundwater and soil gas.

The results of the investigations confirmed that groundwater contamination above regulatory thresholds had migrated off the former Clinton Engines site onto neighboring properties. Groundwater contamination from the former Clinton Engines site is currently estimated to encompass approximately 220 acres. Soil gas samples collected from the Clinton Engines Museum building's sub-slab also detected concentrations of eight VOCs above their respective laboratory method detection limits. The eight VOCs detected include chloroethane, cis-1,2-dichloroethene, m-Xylene & p-Xylene, trans-1,2-dichloroethene, trichloroethene, dichlorodifluoromethane, hexane, and methylene chloride.

3.1 Site Characteristics

The Property consists of approximately 19.7 acres located at 605 East Maple Street in Maquoketa, Iowa, Jackson County, Iowa and is additionally identified as Parcels #145181938200700 and #145181938200800. It is located in the NE ¼ of the SW ¼ of Section 19, Township 84 North, Range 03 East in Jackson County, Iowa, and is further located at approximately 42.065815° North latitude and -90.658613° West longitude (Appendix D, Figure 1).

The Property currently consists of a 5,379 square foot former office building which is currently utilized as the Clinton Engines Museum. The surrounding properties consist of residential and commercial development, agricultural land and roadways. The following table summarizes current uses of the parcels adjoining the Property.

Direction from Property	Descriptions(s)
North	E. Maple Street followed by commercial and residential development
East	Commercial development followed by E. Maple Street
South	Residential development and agricultural land
West	S. Clark Street followed by residential and commercial development

4.0 SUPPLEMENTAL PHASE II ESA ACTIVITIES AND RESULTS

The purpose of this Supplemental Phase II ESA is to delineate the vertical and horizontal extent of groundwater contamination. Groundwater samples were collected from all existing monitoring wells (MW-1 through MW-8) and analyzed for Volatile Organic Compounds (VOCs) by EPA Method 8260C. Monitoring wells MW-2R and MW-7R were replaced given that they were not located and were assumed to have been destroyed. Ethylbenzene, toluene and xylene were detected from soil samples collected from MW-2R at concentrations below the most restrictive Statewide Standard (SWS) for soil. The soil boring and monitoring well construction details are presented in Appendix E. Groundwater from boring locations BH-3 through B-57 were collected using a GeoProbe® SP16 screen point sampling system. The system consists of a four foot by 0.65-inch diameter 0.004-inch slotted stainless-steel screen section threaded onto the leading end of 1.5-inch diameter steel sheath fitted with an expendable drive point and advanced into the subsurface via direct push methods. Additional probe rods are added incrementally and advanced to probe refusal or to the top of bedrock. When the top of bedrock was reached, the screen point sampler screen was deployed. The tool string was then retracted approximately four feet while the screen is held in place with the extension rods. As the tool string is retracted, the expendable point is released from the sampler sheath. The tool string and sheath is retracted the full length of the screen to provide the sampling interval desired (4' of screen is

planned for the screened interval in this plan). The SP16 was retracted at 10-foot intervals to the top of the perceived static groundwater level. Groundwater was collected at each interval using pre-cleaned, disposable polyethylene tubing inserted through the drive rods into the SP16 stainless steel screen point sampler and connected to a peristaltic pump. Approximately 30 well volumes (5-gallon) were purged from each 10-foot vertical interval prior to sample collection. Excess polyethylene tubing was removed and replaced after the completion of each groundwater sampling interval to avoid cross contamination between sampling intervals. The collected groundwater samples were carefully poured directly from the disposable polyethylene tubing into pre-cleaned sample bottles provided by Test America. Care was exercised during sampling to avoid aeration of the samples. The bottles were prepared with pre-measured chemical preservatives as required by the analytical laboratory. The sample was packed in ice immediately after collection and shipped via chain-of-custody control directly to Test America for analysis of volatile organic compounds using EPA Method 8260C. Groundwater samples collected during the June 18th through June 20th sampling events were obtained using pre-cleaned, disposable polyethylene tubing connected to a peristaltic pump and analyzed onsite using a mobile gas chromatography (GC) lab by EPA Method 8260C. Duplicate samples from selected intervals were collected and submitted to Test America for analysis of VOCs analysis using EPA Method 8260C. The process was repeated at every 10-foot vertical interval until the top of the static groundwater level was reached. Prior to groundwater sampling activities, SP16 sampling locations were marked in the field and Iowa One Call was contacted to locate buried utilities. The Site Map Overview is presented as Figure 2.

4.1 Groundwater Assessment

Chlorinated solvents including trichloroethylene (TCE), cis 1,2-dichloroethylene, 1,2-transdichloroethylene, toluene, 1.1.2-trichloroethane and vinyl chloride concentrations exceeding the Iowa Department of Natural Resources (IDNR) non-protected groundwater source action levels have been identified up to 0.64-miles to the northeast; 0.12-miles to the northwest; 0.06-miles to the west and 0.2-miles south southeast of the Property and to a maximum depth explored of 79-feet below the ground surface. . Chlorinated solvent concentrations exceeding the Iowa Department of Natural Resources (IDNR) Land Recycling Program (LRP) non-protected groundwater source action levels have been identified at residential and commercial parcels listed in Appendix C, Table 1. Potential chlorinated solvent exposure pathways into residential and commercial properties include soil and groundwater vapor to confined space receptors including basements, sanitary sewer mains and service lines, sub-slab vapor accumulation and permeation of chlorinated solvents into water mains and service lines. Groundwater analytical results exceeding laboratory reporting limits from BH-3 through B-34 collected during the 2013 and 2014 assessments and B-35 through B-57 collected during the 2019 assessments are presented in Appendix F, Table 2. Groundwater contamination maps are presented in Appendix D, Figure 3. Laboratory analytical results are presented in Appendix B.

5.0 EXPOSURE ROUTE EVALUATION

Chlorinated solvents including trichloroethylene (TCE), cis 1,2-dichloroethylene, 1,2-transdichloroethylene, toluene, 1.1.2-trichloroethane and vinyl chloride concentrations exceeding the Iowa Department of Natural Resources (IDNR) non-protected groundwater source action levels have been identified up to 0.64-miles to the northeast; 0.12-miles to the northwest; 0.06-miles to the west and 0.2-miles south southeast of the Property and to a maximum depth explored of 79-feet below the ground surface.. Potential chlorinated solvent exposure pathways into residential and commercial properties include groundwater vapor to confined space receptors (i.e., basements, sanitary sewer mains and service lines), sub-slab vapor accumulation and permeation of chlorinated solvents into water mains and service lines.

At risk residential, commercial, industrial and agricultural parcels potentially impacted by the historic industrial activities associated with the Clinton Engines site are presented in Appendix C, Table 1.

6.0 DEVIATIONS FROM SCOPE

- Due to scheduling conflicts, groundwater samples from locations B-35 through B-49 were submitted to TestAmerica for laboratory analysis given that the mobile gas chromatography lab was not available.

No other site-specific conditions warranted deviation from the proposed sampling plan.

7.0 FINDINGS AND CONCLUSIONS

Chlorinated solvents including trichloroethylene (TCE), cis 1,2-dichloroethylene, 1,2-transdichloroethylene, toluene, 1.1.2-trichloroethane and vinyl chloride concentrations exceeding the Iowa Department of Natural Resources (IDNR) non-protected groundwater source action levels have been identified up to 0.64-miles to the northeast; 0.12-miles to the northwest; 0.06-miles to the west and 0.2-miles south southeast of the Property and to a maximum depth explored of 79-feet below the ground surface.. A complete listing of potentially impacted parcels is presented in Appendix C, Table 1of this report. Potential chlorinated solvent exposure pathways into impacted properties include groundwater vapor to confined space receptors (i.e., basements, sanitary sewer mains and service lines), sub-slab vapor accumulation and permeation of chlorinated solvents into water mains and water service lines.

Based on the findings and conclusions resultant of data collected during the 2013, 2014 and 2019 groundwater investigation, the historic operations of the former Clinton Engine Works had contributed to concentrations of chlorinated solvent

contamination in groundwater exceeding the non-protected Statewide Standards. As such, Impact7G recommends the following actions and monitoring efforts:

- Continued monitoring from the onsite permanent groundwater monitoring wells MW-1 through MW-8.
- A draft corrective action design report (CADR) to evaluate at least three groundwater remediation strategies.
- Vapor intrusion assessment to discern risk to residential properties located along South Clark and South Matteson Street between Locust and Pleasant Street and at the residential trailer park located east of the Property.
- Complete a detailed assessment of water wells within the impacted groundwater area.
- Evaluation of the need for specifying engineering controls associated with new construction on parcels that exhibit potential exposure pathways associated with identified contaminants.
- Evaluation of the need for institutional controls by way of City ordinance that prevent existing non-residential zoned areas affected by the identified contaminants to be rezoned as residential unless engineering controls are designed into proposed developments that eliminate potential groundwater vapor exposure pathways.

Impact7Gs conclusions are rendered in accordance with generally accepted professional standard but are not to be construed as a guarantee or warranty as to the potential liability associated with environmental conditions at the site.

8.0 DATA VALIDATION AND USABILITY

Validation of the data collected during this assessment of the Property is included below.

8.1 Representativeness

All samples were collected in such a manner and at locations specified in the Phase II ESA Work Plan to accurately reflect the constituent concentrations in the media from which they were taken at the time of sampling. Sample locations were biased to focus efforts on areas of the Property and off-site with the greatest potential to be impacted by environmental concerns. Representativeness of the data was partially ensured by avoiding cross-contamination, adhering to standard sample handling and analytical procedures, and use of proper chain-of-custody documentation procedures.

8.2 Comparability

In order that one set of data may be compared with another, all analyses were performed by accepted EPA or state methods, and all analytical results were reported in similar concentration units and format.

8.3 Completeness

In order for a set of data to be utilized with confidence to make a decision, the data must be complete. The sampling design included the collection of samples from specific areas from within the Property and off-site most likely to have been impacted by historic on-site activities.

8.4 Sensitivity

Detection and quantification limits for sample data must be below the Statewide Standard action levels specified in IAC 137. The laboratory method detection limits (MDLs) were below the Statewide Standards.

8.5 Precision

Precision is a measure of the variability of a measurement system. Precision is assessed through the collection and evaluation of field quality control samples. Precision is typically an estimate by means of duplicate measurements and is expressed in terms of relative percent difference (RPD). The goal for precision of field duplicate results is ±30 percent RPD for groundwater samples. The relative percent difference (RPD) between the primary and corresponding duplicate sample will be calculated using the below formula.

$$RPD = \left[\frac{2\ x\ (C_1 - C_2)}{(C_1 + C_2)} \right] \times 100$$

where: RPD = Relative percent difference
C_1 = Analyzed concentration in the samples
C_2 = Analyzed concentration in the duplicate

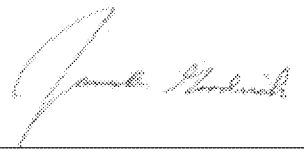
The RPD of ±30 percent was exceeded for cis-1,2-Dichloroethene at sample location B-46 25-29-feet bgs (57.335%).

8.6 Accuracy

Trip blanks and field duplicates were used to evaluate the purity of sample containers, chemical preservatives, and sampling equipment. All sampling and analytical activities were conducted in accordance with EPA approved methods or industry standard practices.

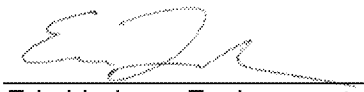
9.0 SIGNATURES OF ENVIRONMENTAL PROFESSIONALS

Signatures of the environmental professionals responsible for this report:

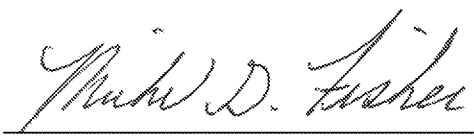


James Goodrich, Senior Environmental Specialist, Report Preparer

Rachel Vanderwerff, Environmental Specialist, GIS Mapping



Eric Lindeen, Environmental Specialist II, Quality Control / Quality Assurance



Mike Fisher, Vice-President, Quality Control / Quality Assurance

APPENDIX A

QUALIFICATIONS

Michael Fisher – Principal

As Vice President of Impact7G, Mike is responsible for business development, client management, project management, contracts review, and working with the other principals to facilitate change as Impact7G grows in service offerings and client base in the coming years. Mike has 28 years of consulting experience including environmental and energy business line management as well as Board of Director responsibilities at an Engineering News Record (ENR) top 200 engineering design firm. Mike also applies his long-running technical expertise in the renewable energy, brownfields redevelopment, and environmental planning market areas. His environmental experience includes extensive experience with the National Environmental Policy Act (NEPA) and brownfields redevelopment. He is also a multi-media environmental compliance expert. Mike spent much of the last decade continuing to work on environmental projects while also facilitating development of multi-megawatts of distributed wind and solar projects. Consistent with Impact7G's mission, Mike's objective is to foster utilization of our land and natural resources in a manner that supports a sustainable future for generations ahead.

James Goodrich – Senior Environmental Specialist

James is a Senior Environmental Specialist at Impact7G with over 18 years of experience. James works on a variety of projects within the company's seven business lines which include: Environmental Compliance, Community Redevelopment, Natural Resources, Sustainability, Environmental and Geotechnical Drilling, and Telecommunications services. James has experience working on a variety of environmental projects including: Phase I and II Environmental Site Assessments (ESAs), wetland delineation and mitigation planning; threatened and endangered species assessments; contaminant risk based corrective action assessments; soil and groundwater remediation system design, construction, maintenance and monitoring; environmental reconnaissance and permitting and petroleum spill mitigation management services. In addition, he has completed numerous leaking underground storage tank investigations and closures in Iowa and throughout the Midwest. Mr. Goodrich has facilitated multiple hazardous materials and petroleum remedial investigations and environmental permitting projects, with specific responsibilities in budget preparation and review, project reporting, regulatory liaison services, and quality review and assurance. James has completed Water of the United States delineations in association with the Clean Water Act and obtained applicable regulatory concurrence (US Army Corps of Engineers, Local Government Unit, etc.,) in multiple states. He has assisted clients with both wetland and stream mitigation services associated with commercial, municipal infrastructure, and industrial developments.

Eric Lindeen – *Senior Environmental Specialist II*

Environmental Specialist Mr. Eric Lindeen is an Environmental Specialist with experience on a variety of environmental projects involving the National Environmental Policy Act (NEPA), environmental permitting, wetland delineations, biological assessments, soil and groundwater sampling, and avian surveys. Mr. Lindeen has completed ASTM 1527-13 compliant site reconnaissance field visits, reviewed local, state, and federal environmental databases, acquired and reviewed historical information, performed warranty deed and lien searches, completed interviews, and prepared Phase I ESA Reports. Mr. Lindeen is 40-hour Hazardous Waste Operations and Emergency Response (HAZWOPER) certified and currently holds an Iowa asbestos inspector's license and abatement contractor/supervisor asbestos license. Mr. Lindeen holds a B.A. in Geography from the University of Northern Iowa.

Rachel Vanderwerf-Environmental Specialist

As an environmental specialist for Impact 7G, Rachel is focused on GIS applications, research, report writing, and ecological restoration. Rachel has a degree from the University of Iowa in Geography with an emphasis in Sustainability. Her education, nine-year experience in the natural resources field, combined with a 10-year background in sustainable agriculture, brings perspective and knowledge to all her projects. Rachel brings organization, efficiency and clarity to projects. Focusing on professional and successful collaboration, Rachel's projects include watershed and land use planning, Stormwater Pollution Prevention Plans (SWPPP), National Environmental Policy Act (NEPA) Environmental Assessments (EA), Environmental Reviews, Phase I Environmental Site Assessments (ESA), ecological restoration and wetland banking. Since 2013, Rachel has worked closely with Impact 7G's Archaeologist on a variety of cultural resources projects including desktop survey Phase IA's, research, risk assessment mapping with GIS, geomorphological mapping and historical preservation. She has worked with a variety of clients including, municipalities, schools, federal and state agencies, and private sector businesses. Specializing in GIS, Rachel's GIS experience includes cartographic production, research and analysis, GPS and Trimble data collection, maintaining and updating databases and records, and floodplain mapping: contributing a variety of GIS skills and services offered at Impact 7G.

APPENDIX C

LABORATORY REPORTS/CHAIN OF CUSTODY DOCUMENTATION

APPENDIX C

TABLE 1

POTENTIALLY IMPACTED PARCELS

Table 1: Potentially Impacted Parcels

Parcel	Address	Deed Holder	Zoning*
821819376016000	312 Clark Street	Collister, Sandra J	R
821819376015000	310 Clark Street	Winegar, Wendy D	R
821819376014000	308 Clark Street	Powers, Melanie A	R
821819376023000	306 Clark Street	Kirgan, Tamera S	R
821819376022000	503 East Maple	Voss, Lucas D	R
821819376001000	501 East Maple Street	Pitts, Thomas F	R
821819329020000	514 East Maple	Snell, Clayton J and Christine L	R
821819376001000	514 East Maple	Pitts, Thomas F	R
145181932902100	201 South Matteson	Schmitt, David P and Heather	R
145181932900200	205 South Matteson	Anderson, Tara L	R
821819329003000	207 South Matteson	Schueller, Ben J and Abigail F	R
821819329004000	211 South Matteson	Davidson, William I	R
821819329005000	213 South Matteson	Rasmussen, Velma J	R
821819329006000	215 South Matteson	Dague, Marianne G	R
821819329007000	217 South Matteson	Den Herder, Tory R	R
821819329008000	219 South Matteson	Gjerstad, Charity D and Mcdevitt, Jeremy J	R
821819376002000	303 South Matteson Street	Sagers, Leigh A	R
821819376003000	307 South Matteson Street	Decker, Lee	R
821819376004000	309 South Matteson Street	Evans, Sandra L	R
821819376005000	311 South Matteson Street	Atkinson, Richee	R
821819376007000	313 South Matteson Street	Wood, Sherri L	R

*R = Residential; C = Commercial; I = Industrial

Table 1: Potentially Impacted Parcels (Continued)

Parcel	Address	Deed Holder	Zoning
821819376008000	315 South Matteson Street	Sonstegard, Robert J	R
821819376009000	319 South Matteson Street	Thede, Kathryn A	R
821819376010000	321 South Matteson Street	Saunders, Ralph L	R
821819329015000	210 South Clark Street	Gluck, William J and Juelet A Family	R
821819329012000	208 South Clark Street	Scott, Steven W & Kerry S	R
145181932901100	206 South Clark Street	Nugent, Brent A & Sheila S	R
145181932900900	507 East Pleasant Street	Nugent, Brent A & Sheila S	C
145181932901800	507 East Pleasant Street	Nugent, Brent A & Sheila S	C
145181933000400	600 East Maple Street	Donar, Wanda	R
145181933000500	East Maple Street	Mulgrew, J C Co, LLC	C
145181932802800	604 East Maple Street	Beck, Mark A and Kendra	R
145181933000700	South Clark Street	Nugent, Brent A and Sheila S	C
145181932802100	709 East Platt Street	BDJ Partnership	I
145181940100900	802 East Maple Street	City of Maquoketa	I
14518194010000	1002 East Maple Street	Beck, Verla R	R
145181940102400	1005 East Platt Street	Clasen, Louis L	C
146181940101800	1015 East Platt Street	T&M Investments	A
146181940101600	1115 East Platt Street	T&M Investments	I
145181940100700	1117 E Platt St	Moonlit Beaches Investments, LLC	R
145181942601400	1205 East Platt	Moonlit Beaches Investments, LLC	R
145181942600100	1207 East Platt Street	First Financial Group, L.C.	R
145181942602400	1209 East Platt Street	Charles, Lee H and Corine A	C
821819276001000	1212 East Quarry Street	City of Maquoketa	C
145181942602500	1211 East Platt Street	Becker, Khristian J & Kristi L Gimmel Rev Trust	C
145181942603700	East Maple Street	Becker, Khristian J & Kristi L Gimmel Rev Trust	C
145181942604200	1286 East Maple Street	VLS Properties, LLC	I
145181942604300	1215 East Platt Street	Maquoketa Fine Arts Center, Inc	C

*R = Residential; C = Commercial; I = Industrial

APPENDIX D

FIGURES

FIGURE 1 - PROPERTY VICINITY MAP

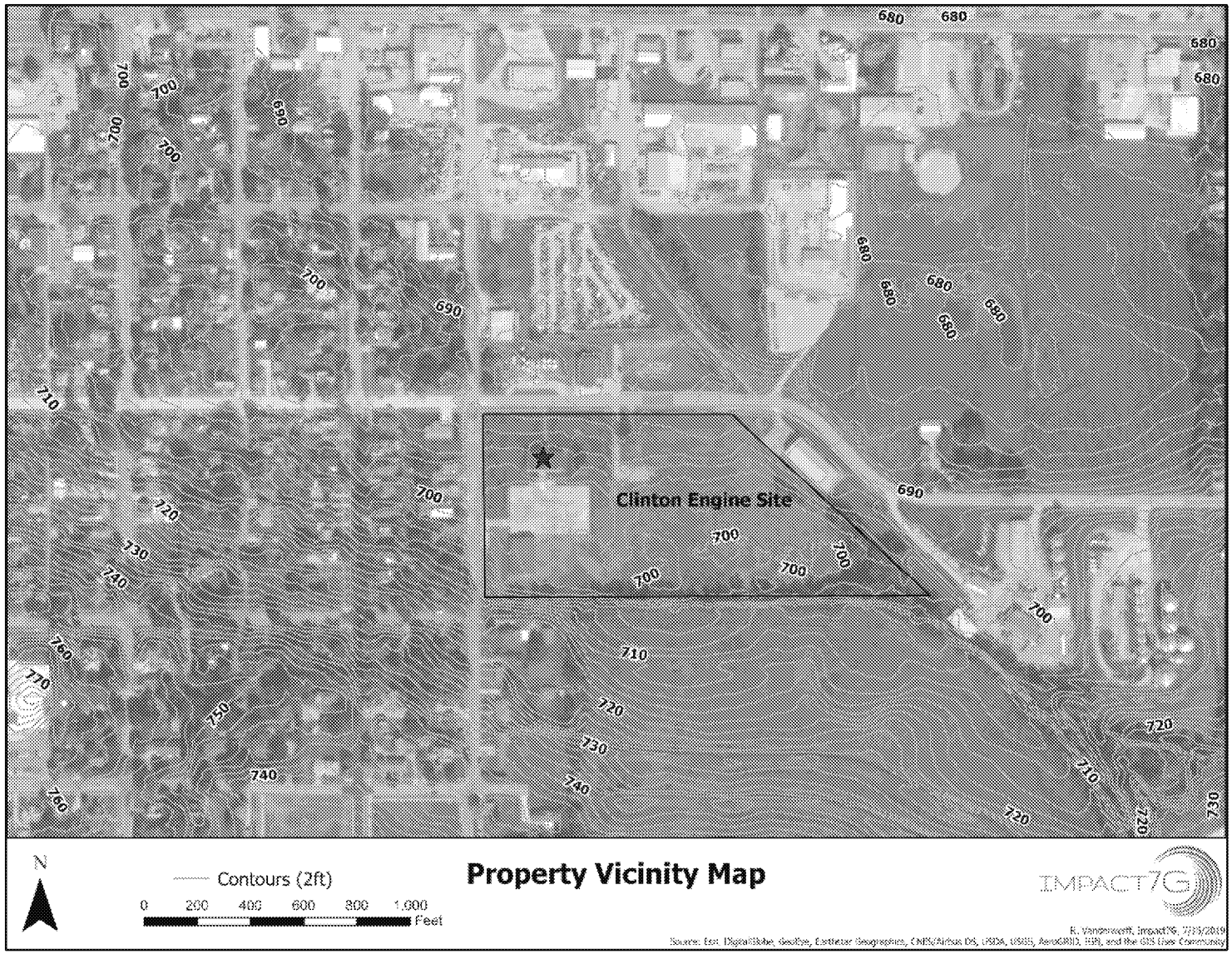


FIGURE 2 - SITE MAP OVERVIEW

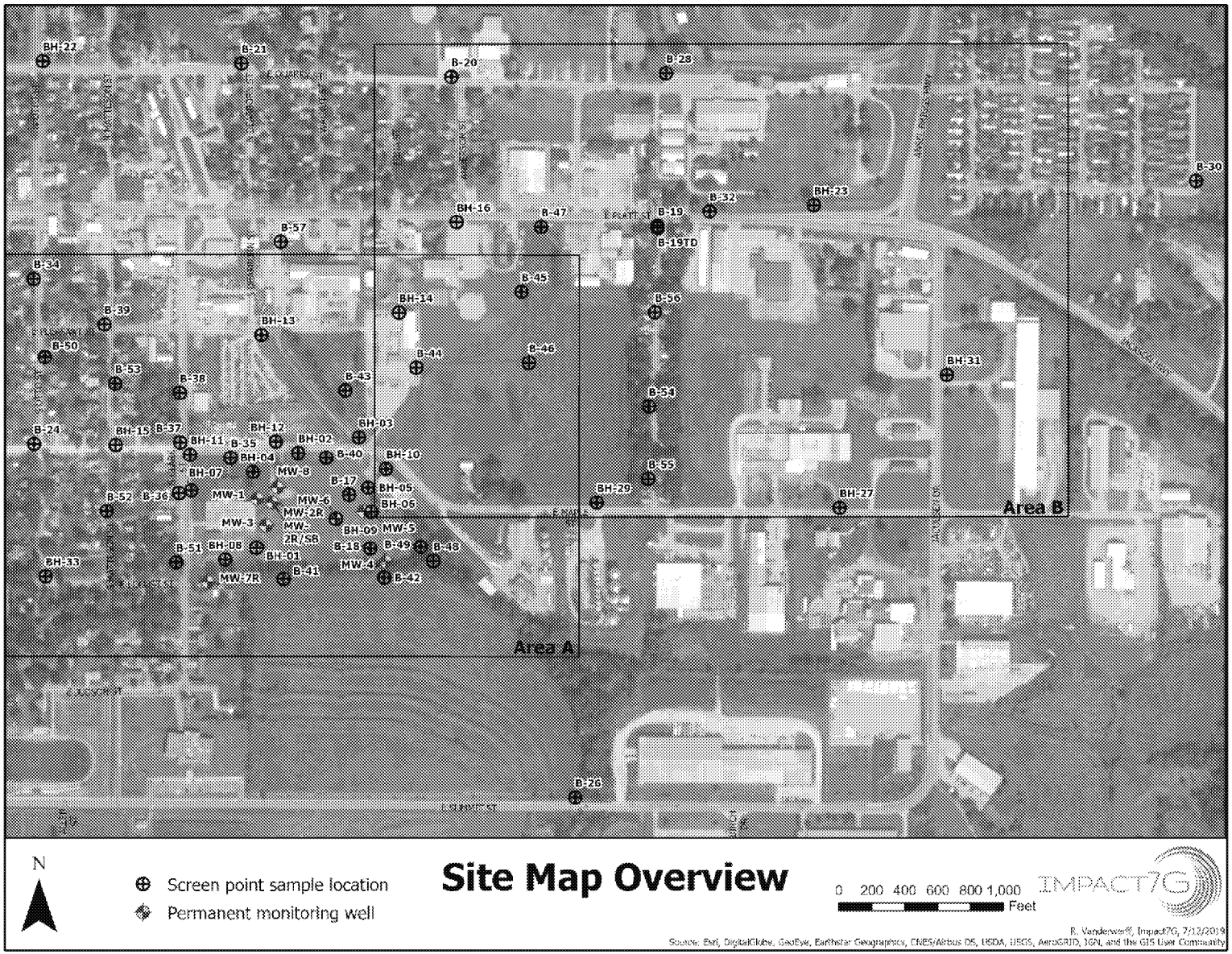


FIGURE 3 – GROUNDWATER CONTAMINATION MAPS


BH-22
B-21
B-20
B-28
B-30
BH-23
B-32
BH-16
B-47
B-19
B-19TD
B-57
B-34
B-45
BH-14
B-56
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BH-13
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B-40
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BH-07
MW-8
B-55
B-17
BH-05
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B-36
MW-1
MW-6
BH-29
BH-27
BH-06
MW-3
MW-2R
MW-2R/SB
BH-09
MW-5
B-51
BH-08
BH-01
B-18
B-49
B-48
BH-33
MW-4
MW-7R
B-41
B-42
B-26
Area A
Area B
N
Screen point sample location
Permanent monitoring well
Site Map Overview
0 200 400 600 800 1,000
Feet
IMPACT7G
R. Vanderwerff, Impact7G, 7/12/2019
Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community
ED_006017_00000137-00023

Trichloroethylene (mg/L) - Max Concentrations

Screen point sample location (TCE)

Permanent monitoring well (TCE)

0 200 400 600 800 Feet

Statewide Standard Protected = 0.005mg/L; Statewide Standard Non-Protected = 0.076 mg/L

*Core ID when red = greater than non-protected statewide standard

GW NE = Groundwater not encountered

N

IMPACT7G

R. Vanderwerff, Impact7G, 7/19/2019

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

ED_006017_00000137-00024

Trichloroethylene (mg/L) - Max Concentrations; Area A

N

⊕ Screen point sample location (TCE)

Permanent monitoring well (TCE)

Statewide Standard Protected = 0.005mg/L; Statewide Standard Non-Protected = 0.076 mg/L

*Core ID when red = greater than non-protected statewide standard

GW NE = Groundwater not encountered

0 200 400 600 800 Feet

IMPACT7G

R. Vanderwerff, Impact7G, 7/15/2019

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

ED_006017_00000137-00025

Trichloroethylene (mg/L) - Max Concentrations; Area B

N

Permanent monitoring well (TCE)

Statewide Standard Protected = 0.005mg/L; Statewide Standard Non-Protected = 0.076 mg/L

*Core ID when red = greater than non-protected statewide standard

GW NE = Groundwater not encountered

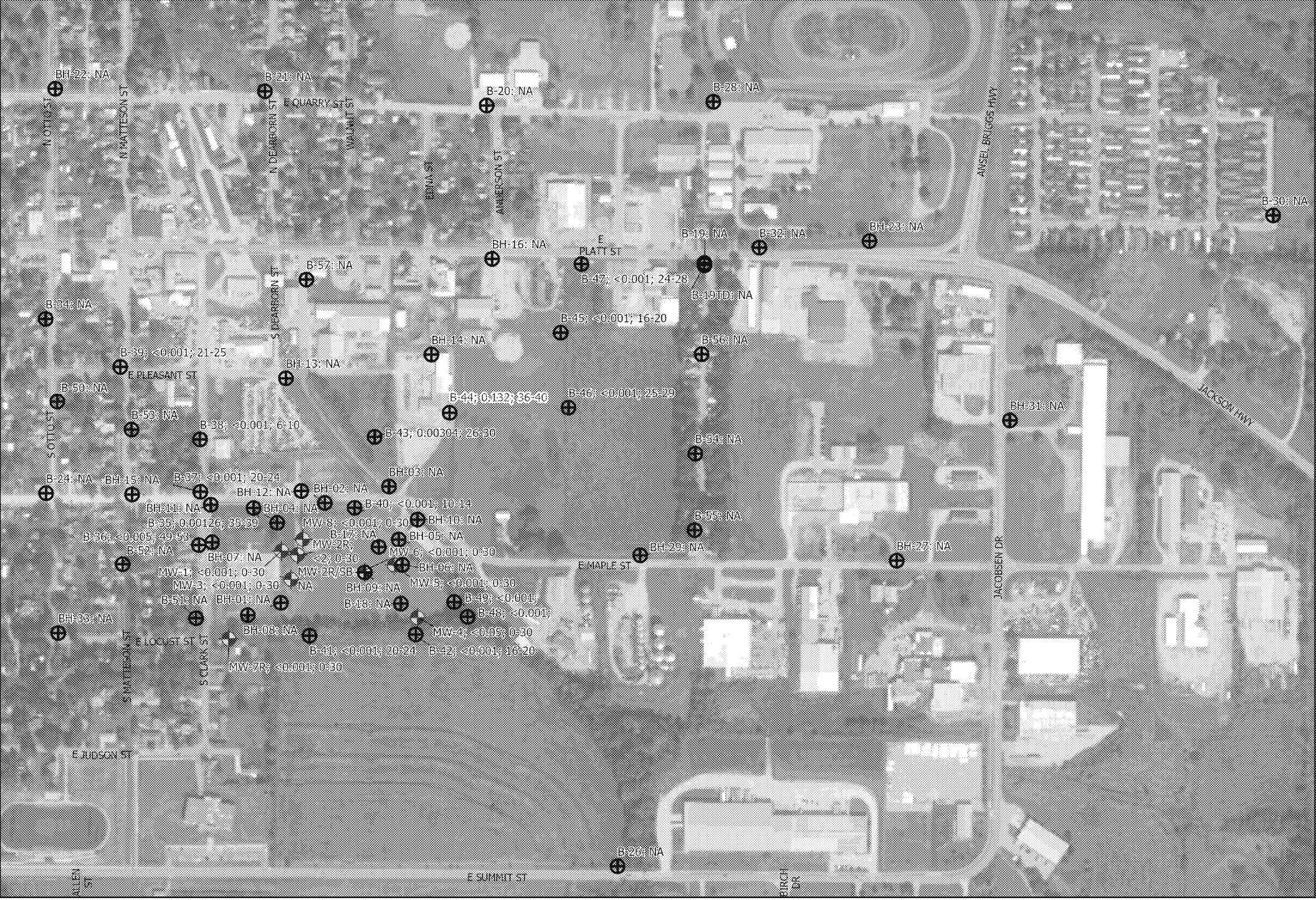
0 200 400 600 800 Feet

IMPACT7G

R. Vanderwerff, Impact7G, 7/19/2019

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

ED_006017_00000137-00026



1,1,2-Trichloroethane (mg/L) - Max Concentrations

N

Screen point sample location (112TCA)

Permanent monitoring well (112TCA)

Statewide Standard Protected = 0.005 mg/L; Statewide Standard Non-Protected = 0.061 mg/L

*Core ID when red = greater than non-protected statewide standard

GW NE = Groundwater not encountered

NA = Not Analyzed

0 200 400 600 800

Feet

IMPACT7G

R. Vanderwerff, Impact7G, 7/15/2019

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

ED_006017_00000137-00027

1,1,2-Trichloroethane (mg/L) - Max Concentrations; Area A

N

Screen point sample location (112TCA)

Permanent monitoring well (112TCA)

Statewide Standard Protected = 0.005 mg/L; Statewide Standard Non-Protected = 0.061 mg/L

*Core ID when red = greater than non-protected statewide standard

GW NE = Groundwater not encountered

NA = Not Analyzed

0 200 400 600 800 Feet

IMPACT7G

R. Vanderwerff, Impact7G, 7/15/2019

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

ED_006017_00000137-00028

1,1,2-Trichloroethane (mg/L) - Max Concentrations; Area B

N

Screen point sample location (112TCA)

Permanent monitoring well (112TCA)

Statewide Standard Protected = 0.005 mg/L; Statewide Standard Non-Protected = 0.061 mg/L

*Core ID when red = greater than non-protected statewide standard

GW NE = Groundwater not encountered

NA = Not Analyzed

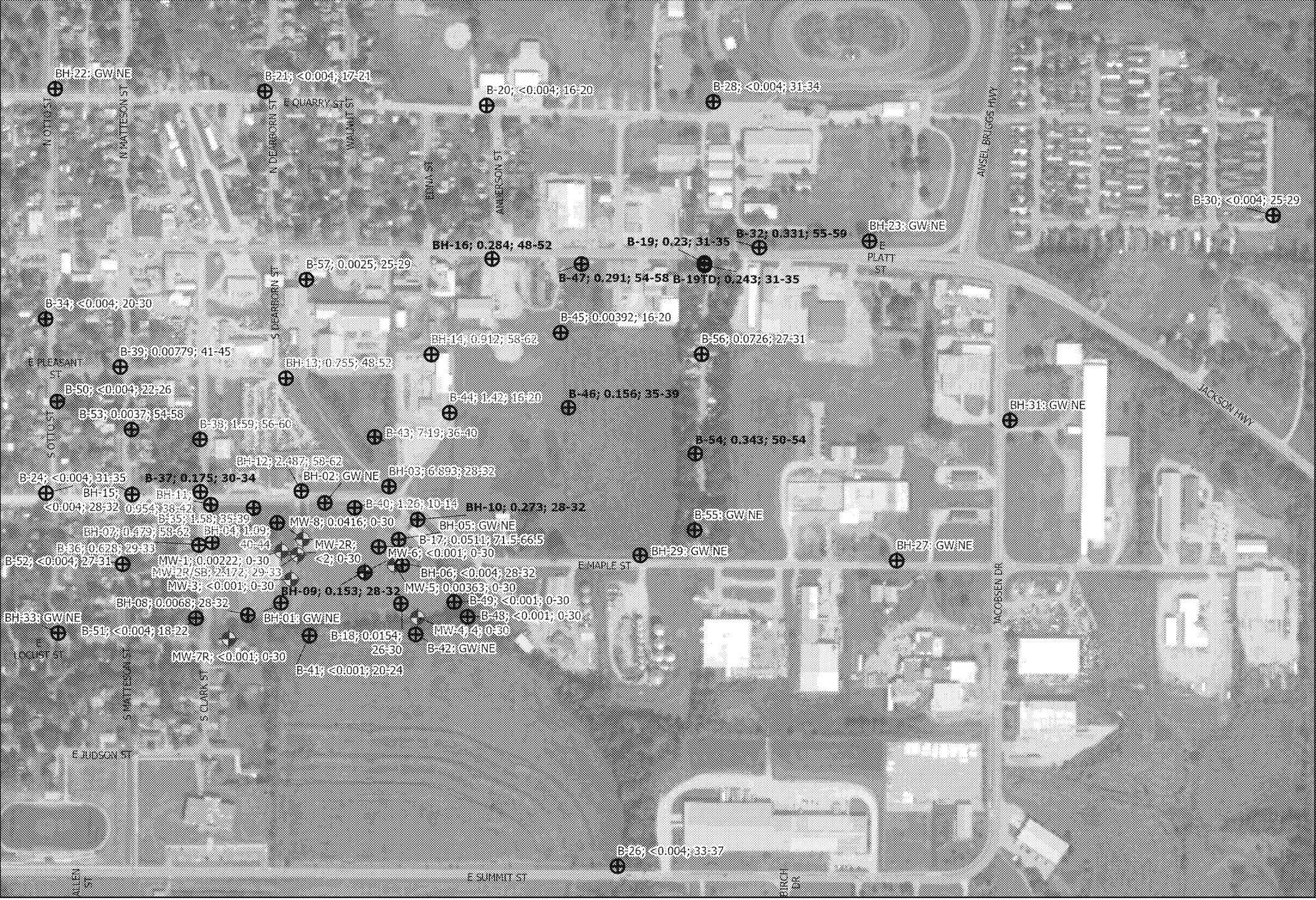
0 200 400 600 800 Feet

IMPACT7G

R. Vanderwerff, Impact7G, 7/15/2019

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

ED_006017_00000137-00029



cis-1,2-Dichloroethylene (mg/L) - Max Concentrations

N

Screen point sample location (C12DCE)

Permanent monitoring well (C12DCE)

0 200 400 600 800

Feet

Statewide Standard Protected = 0.07 mg/L; Statewide Standard Non-Protected = 0.35 mg/L

*Core ID when red = greater than non-protected statewide standard

GW NE = Groundwater not encountered

IMPACT7G

R. Vanderwerff, Impact7G, 7/12/2019

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

ED_006017_00000137-00030

cis-1,2-Dichloroethylene (mg/L) - Max Concentrations; Area A

N

Screen point sample location (C12DCE)

Permanent monitoring well (C12DCE)

Statewide Standard Protected = 0.07 mg/L; Statewide Standard Non-Protected = 0.35 mg/L

*Core ID when red = greater than non-protected statewide standard

GW NE = Groundwater not encountered

0 200 400 600 800 Feet

IMPACT7G

R. Vanderwerff, Impact7G, 7/12/2019

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

ED_006017_00000137-00031

cis-1,2-Dichloroethylene (mg/L) - Max Concentrations; Area B

N

Screen point sample location (C12DCE)

Permanent monitoring well (C12DCE)

Statewide Standard Protected = 0.07 mg/L; Statewide Standard Non-Protected = 0.35 mg/L

*Core ID when red = greater than non-protected statewide standard

GW NE = Groundwater not encountered

0 200 400 600 800 Feet

IMPACT7G

R. Vanderwerff, Impact7G, 7/12/2019

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

ED_006017_00000137-00032

trans-1,2-Dichloroethylene (mg/L) - Max Concentrations

N

Screen point sample location (T12DCE)

Permanent monitoring well (T12DCE)

Statewide Standard Protected = 0.1 mg/L; Statewide Standard Non-Protected = 0.7 mg/L

*Core ID when red = greater than non-protected statewide standard

GW NE = Groundwater not encountered

0 200 400 600 800 Feet

IMPACT7G

R. Vanderwerff, Impact7G, 7/15/2019

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

ED_006017_00000137-00033

N

trans-1,2-Dichloroethylene (mg/L) - Max Concentrations; Area A

⊕ Screen point sample location (T12DCE)

Permanent monitoring well (T12DCE)

Statewide Standard Protected = 0.1 mg/L; Statewide Standard Non-Protected = 0.7 mg/L

*Core ID when red = greater than non-protected statewide standard

GW NE = Groundwater not encountered

IMPACT7G

0 200 400 600 800 Feet

R. Vanderwerff, Impact7G, 7/12/2019

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

ED_006017_00000137-00034

trans-1,2-Dichloroethylene (mg/L) - Max Concentrations; Area B

N

⊕ Screen point sample location (T12DCE)

Permanent monitoring well (T12DCE)

Statewide Standard Protected = 0.1 mg/L; Statewide Standard Non-Protected = 0.7 mg/L

*Core ID when red = greater than non-protected statewide standard

GW NE = Groundwater not encountered

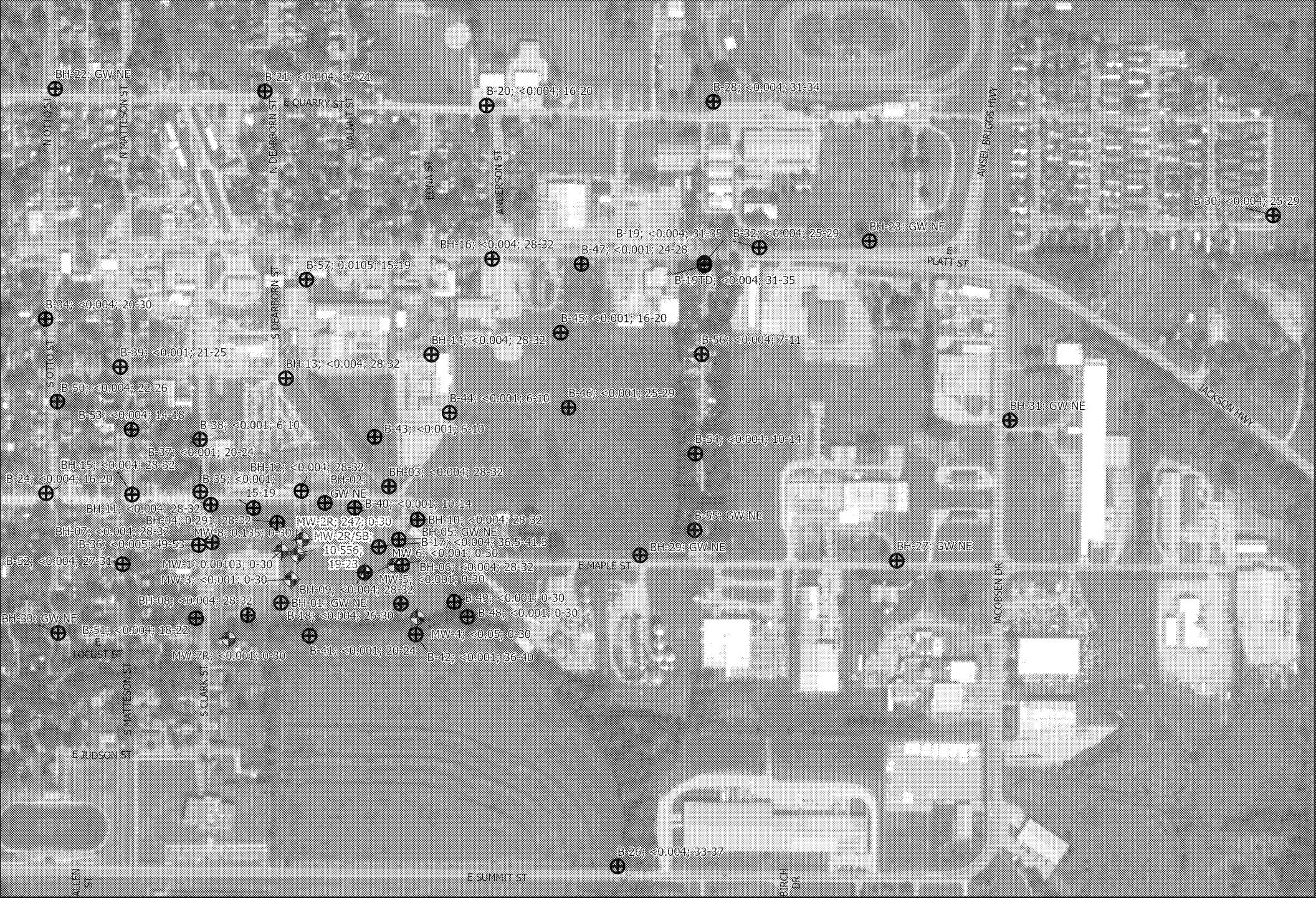
0 200 400 600 800 Feet

IMPACT7G

R. Vanderwerff, Impact7G, 7/12/2019

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

ED_006017_00000137-00035



Toluene (mg/L) - Max Concentrations

N

Screen point sample location (Toluene)

Permanent monitoring well (Toluene)

Statewide Standard Protected = 1 mg/L; Statewide Standard Non-Protected = 5 mg/L

*Core ID when red = greater than non-protected statewide standard

GW NE = Groundwater not encountered

0 200 400 600 800 Feet

IMPACT7G

R. Vanderwerff, Impact7G, 7/15/2019

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

ED_006017_00000137-00036

Toluene (mg/L) - Max Concentrations; Area A

N

Screen point sample location (Toluene)

Permanent monitoring well (Toluene)

Statewide Standard Protected = 1 mg/L; Statewide Standard Non-Protected = 5 mg/L

*Core ID when red = greater than non-protected statewide standard

GW NE = Groundwater not encountered

0 200 400 600 800 Feet

IMPACT7G

R. Vanderwerff, Impact7G, 7/15/2019

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

ED_006017_00000137-00037

Toluene (mg/L) - Max Concentrations; Area B

N

Screen point sample location (Toluene)

Permanent monitoring well (Toluene)

Statewide Standard Protected = 1 mg/L; Statewide Standard Non-Protected = 5 mg/L

*Core ID when red = greater than non-protected statewide standard

GW NE = Groundwater not encountered

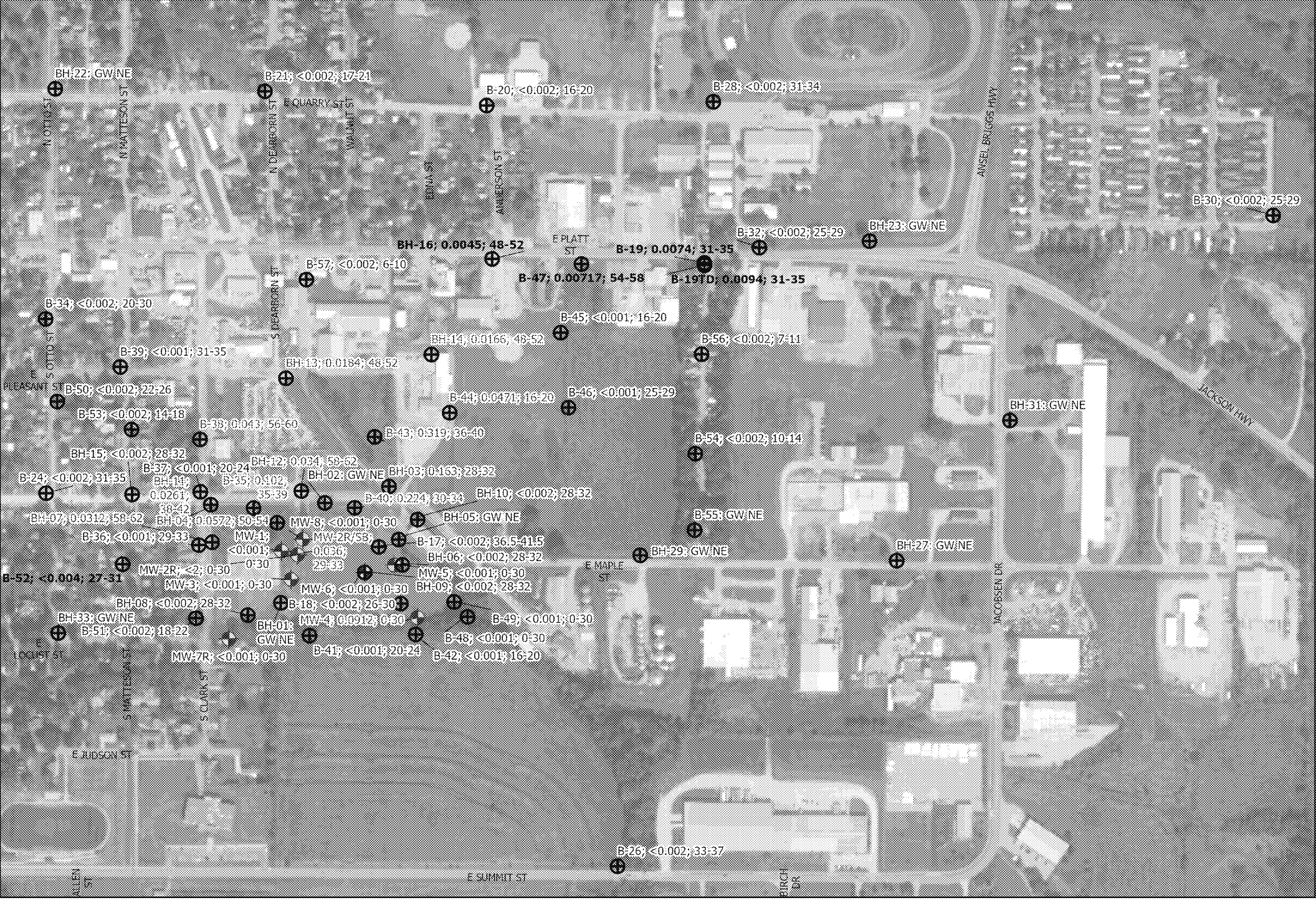
0 200 400 600 800 Feet

IMPACT7G

R. Vanderwerff, Impact7G, 7/15/2019

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

ED_006017_00000137-00038



Vinyl chloride (mg/L) - Max Concentrations

Screen point sample location (VC)

Permanent monitoring well (VC)

0 200 400 600 800

Feet

Statewide Standard Protected = 0.002 mg/L; Statewide Standard Non-Protected = 0.01 mg/L

*Core ID when red = greater than non-protected statewide standard

GW NE = Groundwater not encountered

N

IMPACT7G

R. Vanderwerff, Impact7G, 7/12/2019

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

ED_006017_00000137-00039

Vinyl chloride (mg/L) - Max Concentrations; Area A

N

⊕ Screen point sample location (VC)

Permanent monitoring well (VC)

Statewide Standard Protected = 0.002 mg/L; Statewide Standard Non-Protected = 0.01 mg/L

*Core ID when red = greater than non-protected statewide standard

GW NE = Groundwater not encountered

0 200 400 600 800 Feet

IMPACT7G

R. Vanderwerff, Impact7G, 7/12/2019

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

ED_006017_00000137-00040

Vinyl chloride (mg/L) - Max Concentrations; Area B

N

⊕ Screen point sample location (VC)

Permanent monitoring well (VC)

Statewide Standard Protected = 0.002 mg/L; Statewide Standard Non-Protected = 0.01 mg/L

*Core ID when red = greater than non-protected statewide standard

GW NE = Groundwater not encountered

0 200 400 600 800 Feet

IMPACT7G

R. Vanderwerff, Impact7G, 7/12/2019

Source: Esri, DigitalGlobe, GeoEye, Earthstar Geographics, CNES/Airbus DS, USDA, USGS, AeroGRID, IGN, and the GIS User Community

ED_006017_00000137-00041

APPENDIX E

BORING LOGS/MONITORING WELL CONSTRUCTION DETAILS

Soil Boring Log and Monitoring Well Construction Diagram for: MW-2R

Facility Name: Former Clinton Engine Works	UST Registration No.: NA	LUST No.: NA
Well Contractor Name: Cabeno Environmental	Drilling Method**: HSA	
Well Contractor Registration Number: 11542	Boring Depth (ft) x Diameter (in): 30 x 6.25	
Logged by: James Goodrich, GWP #2072	Ground Surface Elevation (ASL): 696	
Start Date: 5.16.19 / Finish Date: 5.16.19	Top of Casing Elevation (ASL): 699	

Depth (feet)	Well Construction Details	Sample No.	Sample Type*	PID / FID PPM	USCS	Sample Descriptions: soil, color, classification, observation Example: Silty clay, dark gray, hard, moist, strong odor
0	3' above ground surface to 5' bgs-2" ID Sch 40 PVC Riser packed in hydrated granular bentonite			4.1	Fill	Foundry sand with fines fill materials
1				4.1	Fill	
2				4.1	Fill	
3				NR	Fill	
4	4-5' bgs-2" ID SCH 40 PVC packed in 12/20 gradation clean sand			NR	Fill	
5				3.6	ML	Silt of slight plasticity, black, firm, moist
6				4.3	ML	
7▼				7.3	CL	Silt clay, light gray, fine blocky structure, blueish gray with Fe^{2+} redox features 25% gray (10yr 6/1)
8				12.7	CL	
9				118.4	CL	
10	5'-30' bgs-2" ID SCH 40 0.01" slotted PVC packed in 12/20 gradation clean sand			20.1	SM	Sand with clay, 10yr 6/1, Fe^{2+} redox features 40%, loose to medium dense
11				4.7	SM	
12				3.9	SM	
13				4.2	SM	
14				388.6	SM	Saturated sand with clay gray (10yr 6/1)
15				129.3	SM	
16		1	DP	12849	SM	Fine to medium sand with silt, saturated brown (10yr 6/6)
17				5936	SM	
18				2666	SM	
19				391.5	SP	Black stained fine to medium sand with strong toluene odor
20		2	DP	4020	SP	
21				529.1	SP	
22				838.8	SW	Fine to coarse sand, saturated and loose
23				154.4	CL	Clay of slight plasticity with sand yellowish brown (10yr 5/6)
24				85.4	SM	Sand with clay, very moist, yellowish brown (10yr 5/6),
25				4992	SM	
26				222.5	SM	
27				149.3	SM	
28				61.2	CL	Clay of low plasticity with trace sand and gravel yellowish brown (10yr 5/6)
29				59.1	CL	
30	Total Depth of Well 30-feet bgs					

* Sample Types:	** Drilling Method Options:	Symbols to Use:
Split Spoon (SS) Continuous Core (CC)	Rotary Auger, Push Probe, Hand Auger, Air drilling, Hollow Stem Auger, Other (Describe)	v – Static Water Level s – sample collected

Observation Date:	5.22.19				
Time	11:00				
Static Water Level (ASL)	689				

Soil Boring Log And Monitoring Well Construction Diagram for: MW-7R

Facility Name: Former Clinton Engine Works	UST Registration No.:	LUST No.:
Well Contractor Name: Cabeno Environmental	Drilling Method**: HSA	
Well Contractor Registration Number: 11542	Boring Depth (ft) x Diameter (in): 35 x 6.25	
Logged by: James Goodrich, GWP #2072	Ground Surface Elevation (ASL): 713	
Start Date: 5.16.19 / Finish Date: 5.16.19	Top of Casing Elevation (ASL): 693	

Depth (feet)	Well Construction Details	Sample No.	Sample Type*	PID / FID PPM	USCS	Sample Descriptions: soil, color, classification, observation Example: Silty clay, dark gray, hard, moist, strong odor
0	0-20' bgs:2" ID Sch 40 PVC Riser packed in hydrated granular bentonite			1.2	OL	Silt clay loam, fine granular to fine blocky structure, friable dry to moist dark gray (10yr 4/1).
1				1.2	OL	
2				1.2	OL	
3				1.2	OL	
4				1.2	ML	Silt of slight plasticity, moist, firm, dark yellowish brown (10yr 4/4)
5				0.2	ML	
6				5.9	ML	
7				5.9	ML	
8				NR	ML	90% Dark yellowish brown (10yr 4/4)
9				1.9	ML	10% Mn^{2+} redox features, Soft and Saturated,
10				0.7	ML	
11				2.0	ML	
12				0.5	ML	
13				0.7	ML	40% Dark yellowish brown (10yr 4/4)
14				2.1	ML	60% Dark gray (10yr 4/1)
15				2.8	ML	70% Brown (10yr 5/3), to
16				1.1	ML	30% anoxic Gray (10yr 5/1)
17				2.6	ML	
18	19-20' bgs-2" ID SCH 40 PVC packed in 12/20 gradation clean sand			3.4	ML	
19				1.3	ML	Silt with sand of no plasticity, firm, friable, moist, yellowish brown
20				NR	ML	
21	20'-35' bgs-2" ID SCH 40 0.01" slotted PVC packed in 12/20 gradation clean sand			1.8	ML	
22				3.2	ML	
23				3.3	SM/ML	Interbedded fine to medium sand with silt, medium dense, saturated, 40% sandy redox
24				3.3	SM/ML	
25		1	DP	4.6	SM/ML	
26				2.3	SM/ML	
27▼				1.8	SP	Fine to medium sand, medium dense, saturated 50% sandy redox
28				0.4	SM/ML	Interbedded fine to medium sand with silt, medium dense, saturated, 40% sandy redox
29				2.6	SM/ML	
30				2.3	SP	Fine to medium sand, medium dense, saturated, 50% sandy redox
31				3.8	SP	
32				4.5	SP	
33				NR	SM/ML	Interbedded fine to medium sand with silt, medium dense, saturated, 40% sandy redox
34				2.8	SM/ML	
35	Total Depth of well 35-feet bgs					

* Sample Types: Split Spoon (SS) Continuous Core (CC)	** Drilling Method Options: Rotary Auger, Push Probe, Hand Auger, Air drilling, Hollow Stem Auger, Other (Describe)			Symbols to Use: v – Static Water Level s – sample collected	
Observation Date:	05.22.19				
Time	11:00				
Static Water Level (ASL)	688				

APPENDIX F

TABLE 2

GROUNDWATER SAMPLE RESULTS

Table 2.1 – Sample Results Above Laboratory Reporting Limits for Groundwater BH-3 (mg/L)

Sample Location BH-3	BH-3 28-32	BH-3 40-44	BH-3 50-54	BH-3 60-64	BH-3 70-74	Statewide Standard (Protected)	Statewide Standard (Non-Protected)
Date	04/23/2013	04/23/2013	04/23/2013	04/23/2013	04/23/2013		
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
VOCs Constituents							
Benzene	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	**0.005**	**0.064**
Toluene	< 0.004	< 0.004	< 0.004	< 0.004	< 0.004	**1**	**5**
Trichloroethylene	4.258	1.643	1.439	1.817	3.705	**0.005**	**0.076**
cis-1,2-Dichloroethylene	6.893	6.357	6.743	5.636	4.244	**0.07**	**0.35**
trans-1,2-Dichloroethylene	<0.016	<0.016	<0.016	<0.016	<0.004	**0.1**	**0.7**
Vinyl chloride	0.1630	0.106	0.1130	0.1120	0.0989	**0.002**	**0.01**

Bold results indicate analytical results greater than laboratory's method of detection and/or reporting limit.
Shaded results indicate analytical results that exceed the Protected Statewide Standard
~~Red~~ results indicate analytical results that exceed the Non-Protected Statewide Standard.
NE = Not Established

Table 2.2 – Sample Results Above Laboratory Reporting Limits for Groundwater BH-4 (mg/L)

Sample Location BH-4	BH-4 28-32	BH-4 40-44	BH-4 50-54	BH-4 60-64	Statewide Standard (Protected)	Statewide Standard (Non-Protected)
Date	04/23/2013	04/23/2013	04/23/2013	04/23/2013		
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
VOCs Constituents						
Benzene	**0.0183**	<0.004	<0.004	<0.004	**0.005**	**0.064**
Toluene	0.291	0.118	0.02638	0.0111	**1.0**	**5.0**
cis-1,2-Dichloroethylene	0.85	1.09	0.949	**0.0466**	**0.07**	**0.35**
trans-1,2-Dichloroethylene	<0.004	<0.004	<0.004	<0.004	**0.1**	**0.7**
Trichloroethylene	0.111	0.2720	0.6890	**0.0595**	**0.005**	**0.076**
Vinyl chloride	0.0516	0.0409	0.0572	**0.0026**	**0.002**	**0.01**

Bold results indicate analytical results greater than laboratory's method of detection and/or reporting limit.
Shaded results indicate analytical results that exceed the Protected Statewide Standard
~~Red~~ results indicate analytical results that exceed the Non-Protected Statewide Standard.
NE = Not Established

Table 2.3 – Sample Results Above Laboratory Reporting Limits for Groundwater BH-6 (mg/L)

Sample Location BH-6	BH-6 28-32	BH-6 36-40	Statewide Standard (Protected)	Statewide Standard (Non-Protected)
Date	04/23/2013	04/23/2013		
Units	mg/L	mg/L	mg/L	mg/L
VOCs Constituents				
cis-1,2-Dichloroethylene	<0.004	<0.004	**0.07**	**0.35**
Benzene	<0.004	<0.004	**0.005**	**0.064**
Toluene	<0.004	<0.004	**1.0**	**5.0**
trans-1,2-Dichloroethylene	<0.004	<0.004	**0.1**	**0.7**
Trichloroethylene	<0.004	<0.004	**0.005**	**0.076**
Vinyl chloride	<0.002	<0.002	**0.002**	**0.01**

Bold results indicate analytical results greater than laboratory's method of detection and/or reporting limit.
Shaded results indicate analytical results that exceed the Protected Statewide Standard
~~Red~~ results indicate analytical results that exceed the Non-Protected Statewide Standard.
NE = Not Established

Table 2.4 – Sample Results Above Laboratory Reporting Limits for Groundwater BH-7 (mg/L)

Sample Location BH-7	BH-7 28-32 DUP	BH-7 28-32	BH-7 38-42	BH-7 48-52	BH-7 58-62	Statewide Standard (Protected)	Statewide Standard (Non-Protected)
Date	04/24/2013	04/24/2013	04/24/2013	04/24/2013	04/24/2013		
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
VOCs Constituents							
cis-1,2-Dichloroethylene	0.1920	0.1940	0.0471	0.1250	0.4790	0.07	0.35
Benzene	<0.004	<0.004	<0.004	<0.004	<0.004	0.005	0.064
Toluene	<0.004	<0.004	<0.004	<0.004	<0.004	1.0	5.0
trans-1,2-Dichloroethylene	<0.004	<0.004	<0.004	<0.004	<0.004	0.1	0.7
Trichloroethylene	3.365	3.2810	1.9	1.009	1.183	0.005	0.076
Vinyl chloride	0.0138	0.0140	<0.002	0.0094	0.0312	0.002	0.01

Bold results indicate analytical results greater than laboratory's method of detection and/or reporting limit.
Shaded results indicate analytical results that exceed the Protected Statewide Standard
~~Red~~ results indicate analytical results that exceed the Non-Protected Statewide Standard.
NE = Not Established

Table 2.5 – Sample Results Above Laboratory Reporting Limits for Groundwater BH-8 (mg/L)

Sample Location	BH-8 28-32	BH-8 38-42	BH-8 48-52	BH-8 58-62	Statewide Standard (Protected)	Statewide Standard (Non-Protected)
Date	04/24/2013	04/24/2013	04/24/2013	04/24/2013		
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
VOCs Constituents						
cis-1,2-Dichloroethylene	0.0068	<0.004	<0.004	<0.004	**0.07**	**0.35**
Benzene	<0.004	<0.004	<0.004	<0.004	**0.005**	**0.064**
Toluene	<0.004	<0.004	<0.004	<0.004	**1.0**	**5.0**
trans-1,2-Dichloroethylene	<0.004	<0.004	<0.004	<0.004	**0.1**	**0.7**
Trichloroethylene	**0.0492**	**0.0102**	**0.0095**	**0.0168**	**0.005**	**0.076**
Vinyl chloride	<0.002	<0.002	<0.002	<0.002	**0.002**	**0.01**

Bold results indicate analytical results greater than laboratory's method of detection and/or reporting limit.
Shaded results indicate analytical results that exceed the Protected Statewide Standard
~~Red~~ results indicate analytical results that exceed the Non-Protected Statewide Standard.
NE = Not Established

Table 2.6 – Sample Results Above Laboratory Reporting Limits for Groundwater BH-9 (mg/L)

Sample Location	BH-9 28-32	BH-9 36-40	Statewide Standard (Protected)	Statewide Standard (Non-Protected)
Date	04/24/2013	04/24/2013		
Units	mg/L	mg/L	mg/L	mg/L
VOCs Constituents				
cis-1,2-Dichloroethylene	0.0068	<0.004	**0.07**	**0.35**
Benzene	<0.004	<0.004	**0.005**	**0.064**
Toluene	<0.004	<0.004	**1.0**	**5.0**
trans-1,2-Dichloroethylene	<0.004	<0.004	**0.1**	**0.7**
Trichloroethylene	**0.0492**	**0.0102**	**0.005**	**0.076**
Vinyl chloride	<0.002	<0.002	**0.002**	**0.01**

Bold results indicate analytical results greater than laboratory's method of detection and/or reporting limit.
Shaded results indicate analytical results that exceed the Protected Statewide Standard
~~Red~~ results indicate analytical results that exceed the Non-Protected Statewide Standard.
NE = Not Established

Table 2.7 – Sample Results Above Laboratory Reporting Limits for Groundwater BH-10

Sample Location	BH-10 28-32	BH-10 28-32 DUP	BH-10 38-42	BH-10 46-50	Statewide Standard (Protected)	Statewide Standard (Non-Protected)
Date	04/24/2013	04/24/2013	04/24/2013	04/24/2013		
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
VOCs Constituents						
cis-1,2-Dichloroethylene	0.273	0.282	0.0692	0.0732	0.07	0.35
Benzene	<0.004	<0.004	<0.004	<0.004	0.005	0.064
Toluene	<0.004	<0.004	<0.004	<0.004	1.0	5.0
trans-1,2-Dichloroethylene	0.0665	0.0571	0.0759	0.0795	0.1	0.7
Vinyl chloride	<0.002	<0.002	<0.002	<0.002	0.002	0.01
Trichloroethylene	0.0635	0.0649	0.0224	0.159	0.005	0.076

Bold results indicate analytical results greater than laboratory's method of detection and/or reporting limit.
Shaded results indicate analytical results that exceed the Protected Statewide Standard
~~Red~~ results indicate analytical results that exceed the Non-Protected Statewide Standard.
NE = Not Established

Table 2.8 – Sample Results Above Laboratory Reporting Limits for Groundwater BH-11 (mg/L)

Sample Location	BH-11 28-32	BH-11 38-42	BH-11 48-52	BH-11 58-62	Statewide Standard (Protected)	Statewide Standard (Non-Protected)
Date	04/24/2013	04/24/2013	04/24/2013	04/24/2013		
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
VOCs Constituents						
cis-1,2-Dichloroethylene	0.595	0.954	0.216	0.0527	0.07	0.35
Benzene	<0.004	<0.004	<0.004	<0.004	0.005	0.064
Toluene	<0.004	<0.004	<0.004	<0.004	1.0	5.0
trans-1,2-Dichloroethylene	0.0946	<0.004	0.0744	0.0442	0.1	0.7
Vinyl chloride	0.0195	0.0261	<0.002	<0.002	0.002	0.01
Trichloroethylene	7.825	8.687	5.278	0.462	0.005	0.076

Bold results indicate analytical results greater than laboratory's method of detection and/or reporting limit.
Shaded results indicate analytical results that exceed the Protected Statewide Standard
Red results indicate analytical results that exceed the Non-Protected Statewide Standard.
NE = Not Established

Table 2.9 – Sample Results Above Laboratory Reporting Limits for Groundwater BH-12 (mg/L)

Sample Location	BH-12 28-32	BH-12 38-42	BH-12 48-52	BH-12 58-62	Statewide Standard (Protected)	Statewide Standard (Non-Protected)
Date	04/24/2013	04/24/2013	04/24/2013	04/24/2013		
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
VOCs Constituents						
cis-1,2-Dichloroethylene	0.622	1.457	1.221	2.487	**0.07**	**0.35**
Benzene	<0.004	<0.004	<0.004	<0.004	**0.005**	**0.064**
Toluene	<0.004	<0.004	<0.004	<0.004	**1.0**	**5.0**
trans-1,2-Dichloroethylene	**0.552**	1.044	**0.115**	**0.435**	**0.1**	**0.7**
Vinyl chloride	<0.002	0.0146	0.0233	0.034	**0.002**	**0.01**
Trichloroethylene	0.288	0.84	2.147	2.525	**0.005**	**0.076**

Bold results indicate analytical results greater than laboratory's method of detection and/or reporting limit.
Shaded results indicate analytical results that exceed the Protected Statewide Standard
~~Red~~ results indicate analytical results that exceed the Non-Protected Statewide Standard.
NE = Not Established

Table 2.10 – Sample Results Above Laboratory Reporting Limits for Groundwater BH-13 (mg/L)

Sample Location	BH-13 28-32	BH-13 38-42	BH-13 48-52	BH-13 58-62	Statewide Standard (Protected)	Statewide Standard (Non-Protected)
Date	04/25/2013	04/25/2013	04/25/2013	04/25/2013		
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
VOCs Constituents						
cis-1,2-Dichloroethylene	<0.004	0.425	0.755	**0.0616**	**0.07**	**0.35**
Benzene	<0.004	<0.004	<0.004	<0.004	**0.005**	**0.064**
Toluene	<0.004	<0.004	<0.004	<0.004	**1.0**	**5.0**
trans-1,2-Dichloroethylene	<0.004	**0.216**	**0.324**	**0.0244**	**0.1**	**0.7**
Vinyl chloride	<0.002	0.0108	0.0184	**0.0091**	**0.002**	**0.01**
Trichloroethylene	<0.004	**0.0287**	**0.0327**	**0.0065**	**0.005**	**0.076**

Bold results indicate analytical results greater than laboratory's method of detection and/or reporting limit.
Shaded results indicate analytical results that exceed the Protected Statewide Standard
~~Red~~ results indicate analytical results that exceed the Non-Protected Statewide Standard.
NE = Not Established

Table 2.11 – Sample Results Above Laboratory Reporting Limits for Groundwater BH-14 (mg/L)

Sample Location	BH-14 28-32	BH-14 38-42	BH-14 48-52	BH-14 58-62	Statewide Standard (Protected)	Statewide Standard (Non-Protected)
Date	04/25/2013	04/25/2013	04/25/2013	04/25/2013		
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
VOCs Constituents						
cis-1,2-Dichloroethylene	**0.153**	**0.248**	0.4	0.912	**0.07**	**0.35**
Benzene	<0.004	<0.004	<0.004	<0.004	**0.005**	**0.064**
Toluene	<0.004	<0.004	<0.004	<0.004	**1.0**	**5.0**
trans-1,2-Dichloroethylene	**0.178**	**0.0375**	**0.0688**	**0.0738**	**0.1**	**0.7**
Vinyl chloride	<0.002	**0.0084**	0.0166	<0.002	**0.002**	**0.01**
Trichloroethylene	0.320	0.627	0.791	3.694	**0.005**	**0.076**

Bold results indicate analytical results greater than laboratory's method of detection and/or reporting limit.
Shaded results indicate analytical results that exceed the Protected Statewide Standard
~~Red~~ results indicate analytical results that exceed the Non-Protected Statewide Standard.
NE = Not Established

Table 2.12– Sample Results Above Laboratory Reporting Limits for Groundwater BH-15 (mg/L)

Sample Location	BH-15 28-32	BH-15 38-42	BH-15 48-52	BH-15 58-62	Statewide Standard (Protected)	Statewide Standard (Non-Protected)
Date	04/25/2013	04/25/2013	04/25/2013	04/25/2013		
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
VOCs Constituents						
cis-1,2-Dichloroethylene	<0.004	<0.004	<0.004	<0.004	**0.07**	**0.35**
Benzene	<0.004	<0.004	<0.004	<0.004	**0.005**	**0.064**
Toluene	<0.004	<0.004	<0.004	<0.004	**1.0**	**5.0**
trans-1,2-Dichloroethylene	<0.004	<0.004	<0.004	<0.004	**0.1**	**0.7**
Vinyl chloride	<0.002	<0.002	<0.002	<0.002	**0.002**	**0.01**
Trichloroethylene	<0.004	<0.004	<0.004	<0.004	**0.005**	**0.076**

Bold results indicate analytical results greater than laboratory's method of detection and/or reporting limit.
Shaded results indicate analytical results that exceed the Protected Statewide Standard
~~Red~~ results indicate analytical results that exceed the Non-Protected Statewide Standard.
NE = Not Established

Table 2.13 – Sample Results Above Laboratory Reporting Limits for Groundwater BH-16 (mg/L)

Sample Location	BH-16 28-32	BH-16 38-42	BH-16 48-52	Statewide Standard (Protected)	Statewide Standard (Non-Protected)
Date	04/25/2013	04/25/2013	04/25/2013		
Units	mg/L	mg/L	mg/L	mg/L	mg/L
VOCs Constituents					
cis-1,2-Dichloroethylene	**0.162**	<0.004	**0.284**	**0.07**	**0.35**
Benzene	<0.004	<0.004	<0.004	**0.005**	**0.064**
Toluene	<0.004	<0.004	<0.004	**1.0**	**5.0**
trans-1,2-Dichloroethylene	**0.0435**	<0.004	**0.0836**	**0.1**	**0.7**
Vinyl chloride	**0.0035**	<0.002	**0.0045**	**0.002**	**0.01**
Trichloroethylene	**0.0287**	<0.004	**0.0098**	**0.005**	**0.076**

Bold results indicate analytical results greater than laboratory's method of detection and/or reporting limit.
Shaded results indicate analytical results that exceed the Protected Statewide Standard
Red results indicate analytical results that exceed the Non-Protected Statewide Standard.
NE = Not Established

Table 2.14 – Sample Results Above Laboratory Reporting Limits for Groundwater B-17 (mg/L)

Sample Location	B17 36.5-41.5	B17 46.53-51.5	B17 56.5-61.5	B17 71.5-66.5	Statewide Standard (Protected)	Statewide Standard (Non-Protected)
Date	04/21/2014	04/21/2014	04/21/2014	04/21/2014		
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
VOCs Constituents						
Benzene	<0.004	<0.004	<0.004	<0.004	**0.005**	**0.064**
Toluene	<0.004	<0.004	<0.004	<0.004	**1**	**5**
Ethylbenzene	<0.004	<0.004	<0.004	<0.004	**0.7**	**3.5**
Xylenes (omp)	< 0.012	< 0.012	< 0.012	< 0.012	**10**	**50**
Trichloroethylene	**0.0511**	**0.083**	**0.104**	**0.142**	**0.005**	**0.076**
1,1-Dichloroethylene	<0.004	<0.004	<0.004	<0.004	**0.007**	**0.18**
cis-1,2-Dichloroethylene	**0.0369**	**0.0459**	**0.0475**	**0.0511**	**0.07**	**0.35**
trans-1,2-Dichloroethylene	<0.004	<0.004	<0.004	<0.004	**0.1**	**0.7**
Vinyl chloride	<0.002	<0.002	<0.002	<0.002	**0.002**	**0.01**

Bold results indicate analytical results greater than laboratory's method of detection and/or reporting limit.
Shaded results indicate analytical results that exceed the Protected Statewide Standard
~~Red~~ results indicate analytical results that exceed the Non-Protected Statewide Standard.
NE = Not Established

Table 2.15 – Sample Results Above Laboratory Reporting Limits for Groundwater B-18 (mg/L)

Sample Location	B18 26-30	B18 26-30 Duplicate	Statewide Standard (Protected)	Statewide Standard (Non-Protected)
Date	04/21/2014	04/21/2014		
Units	mg/L	mg/L	mg/L	mg/L
VOCs Constituents				
Benzene	<0.004	<0.004	**0.005**	**0.064**
Toluene	<0.004	<0.004	**1**	**5**
Ethylbenzene	<0.004	<0.004	**0.7**	**3.5**
Xylenes (omp)	< 0.012	< 0.012	**10**	**50**
Trichloroethylene	**0.0798**	**0.0843**	**0.005**	**0.076**
1,1-Dichloroethylene	<0.004	<0.004	**0.007**	**0.18**
cis-1,2-Dichloroethylene	**0.0154**	**0.0161**	**0.07**	**0.35**
trans-1,2-Dichloroethylene	<0.004	<0.004	**0.1**	**0.7**
Vinyl chloride	<0.002	<0.002	**0.002**	**0.01**

Bold results indicate analytical results greater than laboratory's method of detection and/or reporting limit.
Shaded results indicate analytical results that exceed the Protected Statewide Standard
~~Red~~ results indicate analytical results that exceed the Non-Protected Statewide Standard.
NE = Not Established

Table 2.16 – Sample Results Above Laboratory Reporting Limits for Groundwater B-19 (mg/L)

Sample Location	B19 31-35	B19 41-45	B19 51-55	Statewide Standard (Protected)	Statewide Standard (Non-Protected)
Date	04/22/2014	04/22/2014	04/22/2014		
Units	mg/L	mg/L	mg/L	mg/L	mg/L
VOCs Constituents					
Benzene	<0.004	<0.004	<0.004	0.005	0.064
Toluene	<0.004	<0.004	<0.004	1	5
Ethylbenzene	<0.004	<0.004	<0.004	0.7	3.5
Xylenes (omp)	< 0.012	< 0.012	< 0.012	10	50
Trichloroethylene	0.835	0.0164	0.102	0.005	0.076
1,1-Dichloroethylene	<0.004	<0.004	<0.004	0.007	0.18
cis-1,2-Dichloroethylene	0.23	0.132	0.211	0.07	0.35
trans-1,2-Dichloroethylene	0.0138	0.0247	0.0638	0.1	0.7
Vinyl chloride	0.0074	<0.002	0.0057	0.002	0.01

Bold results indicate analytical results greater than laboratory's method of detection and/or reporting limit.
Shaded results indicate analytical results that exceed the Protected Statewide Standard
~~Red~~ results indicate analytical results that exceed the Non-Protected Statewide Standard.
NE = Not Established

Table 2.17 – Sample Results Above Laboratory Reporting Limits for Groundwater B-19 TD (mg/L)

Sample Location	B19 31-35	B19 41-45	B19 51-55	Statewide Standard (Protected)	Statewide Standard (Non-Protected)
Date	04/22/2014	04/22/2014	04/22/2014		
Units	mg/L	mg/L	mg/L	mg/L	mg/L
VOCs Constituents					
Benzene	<0.004	<0.004	<0.004	0.005	0.064
Toluene	<0.004	<0.004	<0.004	1	5
Ethylbenzene	<0.004	<0.004	<0.004	0.7	3.5
Xylenes (omp)	< 0.012	<0.004	< 0.012	10	50
Trichloroethylene	0.897	0.0156	0.0798	0.005	0.076
1,1-Dichloroethylene	<0.004	<0.004	<0.004	0.007	0.18
cis-1,2-Dichloroethylene	0.243	0.14	0.161	0.07	0.35
trans-1,2-Dichloroethylene	0.0105	0.026	0.0424	0.1	0.7
Vinyl chloride	0.0094	<0.002	0.0068	0.002	0.01

Bold results indicate analytical results greater than laboratory's method of detection and/or reporting limit.
Shaded results indicate analytical results that exceed the Protected Statewide Standard
~~Red~~ results indicate analytical results that exceed the Non-Protected Statewide Standard.
NE = Not Established

Table 2.18 – Sample Results Above Laboratory Reporting Limits for Groundwater B-20, B-21, B-24 (mg/L)

Sample Location	B20 16-20	B21 17-21	B24 31-35	Statewide Standard (Protected)	Statewide Standard (Non-Protected)
Date	04/22/2014	04/22/2014	04/22/2014		
Units	mg/L	mg/L	mg/L	mg/L	mg/L
VOCs Constituents					
Benzene	<0.004	<0.004	<0.004	**0.005**	**0.064**
Toluene	<0.004	<0.004	<0.004	**1**	**5**
Ethylbenzene	<0.004	<0.004	<0.004	**0.7**	**3.5**
Xylenes (omp)	< 0.012	< 0.012	< 0.012	**10**	**50**
Trichloroethylene	<0.004	<0.004	<0.004	**0.005**	**0.076**
1,1-Dichloroethylene	<0.004	<0.004	<0.004	**0.007**	**0.18**
cis-1,2-Dichloroethylene	<0.004	<0.004	<0.004	**0.07**	**0.35**
trans-1,2-Dichloroethylene	<0.004	<0.004	<0.004	**0.1**	**0.7**
Vinyl chloride	<0.002	<0.002	<0.002	**0.002**	**0.01**

Bold results indicate analytical results greater than laboratory's method of detection and/or reporting limit.
Shaded results indicate analytical results that exceed the Protected Statewide Standard
~~Red~~ results indicate analytical results that exceed the Non-Protected Statewide Standard.
NE = Not Established

Table 2.19 – Sample Results Above Laboratory Reporting Limits for Groundwater B-26, B-28, B-30 (mg/L)

Sample Location	B26 33-37	B26 43-47	B28 31-34	B28 41-44	B30 25-29	B30 35-39	Statewide Standard (Protected)	Statewide Standard (Non-Protected)
Date	04/23/2014	04/23/2014	04/23/2014	04/23/2014	04/23/2014	04/23/2014		
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
VOCs Constituents								
Benzene	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	**0.005**	**0.064**
Toluene	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	**1**	**5**
Ethylbenzene	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	**0.7**	**3.5**
Xylenes (omp)	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	**10**	**50**
Trichloroethylene	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	**0.005**	**0.076**
1,1-Dichloroethylene	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	**0.007**	**0.18**
cis-1,2-Dichloroethylene	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	**0.07**	**0.35**
trans-1,2-Dichloroethylene	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	**0.1**	**0.7**
Vinyl chloride	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	**0.002**	**0.01**

Bold results indicate analytical results greater than laboratory's method of detection and/or reporting limit.
Shaded results indicate analytical results that exceed the Protected Statewide Standard
~~Red~~ results indicate analytical results that exceed the Non-Protected Statewide Standard.
NE = Not Established

Table 2.20 – Sample Results Above Laboratory Reporting Limits for Groundwater B-32 (mg/L)

Sample Location	B32 25-29	B32 25-29 Duplicate	B32 35-39	B32 45-49	B32 55-59	Statewide Standard (Protected)	Statewide Standard (Non-Protected)
Date	04/24/2014	04/24/2014	04/24/2014	04/24/2014	04/24/2014		
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
VOCs Constituents							
Benzene	<0.004	<0.004	<0.004	<0.004	<0.004	**0.005**	**0.064**
Toluene	<0.004	<0.004	<0.004	<0.004	<0.004	**1**	**5**
Ethylbenzene	<0.004	<0.004	<0.004	<0.004	<0.004	**0.7**	**3.5**
Xylenes (omp)	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	**10**	**50**
Trichloroethylene	**0.0243**	**0.0225**	**0.108**	**0.255**	**0.191**	**0.005**	**0.076**
1,1-Dichloroethylene	<0.004	<0.004	<0.004	<0.004	<0.004	**0.007**	**0.18**
cis-1,2-Dichloroethylene	**0.0159**	**0.0153**	**0.121**	**0.3**	**0.331**	**0.07**	**0.35**
trans-1,2-Dichloroethylene	<0.004	<0.004	**0.0128**	**0.0771**	**0.0634**	**0.1**	**0.7**
Vinyl chloride	<0.002	<0.002	<0.002	<0.002	<0.002	**0.002**	**0.01**

Bold results indicate analytical results greater than laboratory's method of detection and/or reporting limit.
Shaded results indicate analytical results that exceed the Protected Statewide Standard
~~Red~~ results indicate analytical results that exceed the Non-Protected Statewide Standard.
NE = Not Established

Table 2.21 – Sample Results Above Laboratory Reporting Limits for Groundwater B-34 (mg/L)

Sample Location	B34 20-30	B34 30-40	B34 30-40 Duplicate	Statewide Standard (Protected)	Statewide Standard (Non-Protected)
Date	04/24/2014	04/24/2014	04/24/2014		
Units	mg/L	mg/L	mg/L	mg/L	mg/L
VOCs Constituents					
Benzene	<0.004	<0.004	<0.004	**0.005**	**0.064**
Toluene	<0.004	<0.004	<0.004	**1**	**5**
Ethylbenzene	<0.004	<0.004	<0.004	**0.7**	**3.5**
Xylenes (omp)	< 0.012	< 0.012	< 0.012	**10**	**50**
Trichloroethylene	<0.004	**0.0116**	0.117	**0.005**	**0.076**
1,1-Dichloroethylene	<0.004	<0.004	<0.004	**0.007**	**0.18**
cis-1,2-Dichloroethylene	<0.004	<0.004	<0.004	**0.07**	**0.35**
trans-1,2-Dichloroethylene	<0.004	<0.004	<0.004	**0.1**	**0.7**
Vinyl chloride	<0.002	<0.002	<0.002	0.002	0.01

Bold results indicate analytical results greater than laboratory's method of detection and/or reporting limit.
Shaded results indicate analytical results that exceed the Protected Statewide Standard
~~Red~~ results indicate analytical results that exceed the Non-Protected Statewide Standard.
NE = Not Established

Table 2.22 – Sample Results Above Laboratory Reporting Limits for Groundwater B-35 (mg/L)

Sample Location	B35 75-79	B35 65-69	B35 55-59	B35 45-49	B35 35-39	B35 25-29	B35 15-19	B35 15-19 Duplicate	Statewide Standard (Protected)	Statewide Standard (Non-Protected)
Date	05/13/2019	05/13/2019	05/13/2019	05/13/2019	05/13/2019	05/13/2019	05/13/2019	05/13/2019		
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
VOCs Constituents										
Benzene	<0.0005	<0.0005	<0.0005	**0.00338**	**0.00604**	**0.00473**	<0.0005	**0.000531**	0.005	0.064
Chloroform	<0.003	**0.00309**	**0.00303**	<0.003	**<0.003**	<0.003	<0.003	<0.003	0.08	NE
1,1-Dichloroethane	<0.001	<0.001	<0.001	**0.00509**	**0.00432**	**0.00334**	<0.001	<0.001	0.14	0.7
1,1-Dichloroethylene	<0.002	<0.002	<0.002	0.0118	**0.0149**	**0.0113**	<0.002	<0.002	0.007	0.18
cis-1,2-Dichloroethylene	**0.0235**	**0.0187**	**0.23**	1.12	1.58	1.01	**0.0453**	0.121	0.07	0.35
1,1,1-Trichloroethane	<0.001	<0.001	<0.001	**0.00166**	**0.00211**	**0.00162**	**0.00759**	**0.00759**	0.2	70
1,1,2-Trichloroethane	<0.001	<0.001	<0.001	<0.001	**0.00126**	<0.001	<0.001	<0.001	0.005	0.061
Trichloroethylene	0.199	1.39	1.336	8.28	8.97	7.76	1.63	2.23	0.005	0.076
Vinyl chloride	<0.001	<0.001	<0.001	0.0698	0.102	0.0773	<0.001	**0.00529**	0.002	0.01

Bold results indicate analytical results greater than laboratory's method of detection and/or reporting limit.
Shaded results indicate analytical results that exceed the Protected Statewide Standard
Red results indicate analytical results that exceed the Non-Protected Statewide Standard.
NE = Not Established

Table 2.23 – Sample Results Above Laboratory Reporting Limits for Groundwater B-36 (mg/L)

Sample Location	B36 49-53	B36 39-43	B36 29-33	Statewide Standard (Protected)	Statewide Standard (Non-Protected)
Date	05/13/2019	05/13/2019	05/13/2019		
Units	mg/L	mg/L	mg/L	mg/L	mg/L
VOCs Constituents					
cis-1,2-Dichloroethene	**0.163**	**0.0631**	0.628	0.07	0.35
Trichloroethylene	2.4	1.19	0.946	0.005	0.076

Bold results indicate analytical results greater than laboratory's method of detection and/or reporting limit.
Shaded results indicate analytical results that exceed the Protected Statewide Standard
~~Red~~ results indicate analytical results that exceed the Non-Protected Statewide Standard.
NE = Not Established

Table 2.24 – Sample Results Above Laboratory Reporting Limits for Groundwater B-37 (mg/L)

Sample Location	B37 70-74	B37 60-64	B37 50-54	B37 40-44	B37 30-34	B37 20-24	B37 20-24 Duplicate	Statewide Standard (Protected)	Statewide Standard (Non-Protected)
Date	05/13/2019	05/13/2019	05/13/2019	05/13/2019	05/13/2019	05/13/2019	05/13/2019		
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
VOCs Constituents									
Acetone	<0.010	<0.010	**0.0289**	**0.0167**	<0.010	<0.010	<0.010	6.3	32
1,2-Dichlorobenzene	<0.0010	<0.0010	<0.0010	<0.0010	**0.00105**	<0.0010	<0.0010	0.6	3.2
1,1-Dichloroethylene	<0.0020	<0.0020	<0.0020	<0.0020	**0.00215**	<0.0020	<0.0020	0.007	0.18
cis-1,2-Dichloroethylene	**0.00108**	**0.00119**	<0.0010	**0.00169**	**0.175**	**0.00141**	**0.00161**	0.07	0.35
trans-1,2-Dichloroethene	<0.0010	<0.0010	<0.0010	<0.0010	**0.350**	**0.00437**	**0.00522**	0.1	0.7
Trichloroethylene	0.127	**0.0122**	**0.0104**	0.136	0.508	**0.0278**	**0.0327**	0.005	0.076

Bold results indicate analytical results greater than laboratory's method of detection and/or reporting limit.
Shaded results indicate analytical results that exceed the Protected Statewide Standard
~~Red~~ results indicate analytical results that exceed the Non-Protected Statewide Standard.
NE = Not Established

Table 2.25 – Sample Results Above Laboratory Reporting Limits for Groundwater B-38 (mg/L)

Sample Location	B38 56-60	B38 46-50	B38 36-40	B38 26-30	B38 16-20	B38 16-20 Duplicate	B38 6-10	Statewide Standard (Protected)	Statewide Standard (Non-Protected)
Date	05/14/2019	05/14/2019	05/14/2019	05/14/2019	05/14/2019	05/14/2019	05/14/2019		
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
VOCs Constituents									
Benzene	**0.000693**	**0.000785**	**0.000805**	<0.500	<0.500	<0.500	<0.500	0.005	0.064
Chlorobenzene	**0.00187**	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	0.1	0.7
1,1-Dichloroethane	**0.00724**	**0.00285**	**0.00366**	**0.00137**	<0.0010	<0.0010	<0.0010	0.14	0.7
1,1-Dichloroethylene	**0.0145**	**0.00713**	**0.00846**	**0.00408**	<0.0020	<0.0020	<0.0020	0.007	0.18
cis-1,2-Dichloroethylene	1.59	0.690	0.800	**0.322**	**0.0734**	**0.0783**	**0.102**	0.07	0.35
trans-1,2-Dichloroethylene	**0.551**	**0.371**	**0.390**	**0.160**	**0.0388**	**0.040**	**0.0388**	0.1	0.7
Trichloroethylene	9.58	6.670	7.140	4.270	0.861	0.870	1.030	0.005	0.076
Vinyl chloride	0.043	0.0202	0.0232	**0.00877**	**0.00204**	**0.00231**	**0.00214**	0.002	0.01

Bold results indicate analytical results greater than laboratory's method of detection and/or reporting limit.
Shaded results indicate analytical results that exceed the Protected Statewide Standard
~~Red~~ results indicate analytical results that exceed the Non-Protected Statewide Standard.
NE = Not Established

Table 2.26 – Sample Results Above Laboratory Reporting Limits for Groundwater B-39 (mg/L)

Sample Location	B39 41-45	B39 31-35	B38 21-25	Statewide Standard (Protected)	Statewide Standard (Non-Protected)
Date	05/14/2019	05/14/2019	05/14/2019		
Units	mg/L	mg/L	mg/L	mg/L	mg/L
VOCs Constituents					
cis-1,2-Dichloroethene	**0.00779**	**0.00439**	<0.0010	0.07	0.35
trans-1,2-Dichloroethylene	**0.00382**	**0.00268**	<0.0010	0.1	0.7
Trichloroethylene	**0.00630**	**0.00452**	**0.00111**	0.005	0.076

Bold results indicate analytical results greater than laboratory's method of detection and/or reporting limit.
Shaded results indicate analytical results that exceed the Protected Statewide Standard
~~Red~~ results indicate analytical results that exceed the Non-Protected Statewide Standard.
NE = Not Established

Table 2.27 – Sample Results Above Laboratory Reporting Limits for Groundwater B-40 (mg/L)

Sample Location	B40 30-34	B40 20-24	B40 20-24 Duplicate	B40 10-14	Statewide Standard (Protected)	Statewide Standard (Non-Protected)
Date	05/14/2019	05/14/2019	05/14/2019	05/14/2019		
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
VOCs Constituents						
Benzene	**0.00731**	**0.00167**	**0.00162**	**0.00218**	0.005	0.064
1,1-Dichloroethylene	**0.00217**	**0.00217**	**0.00277**	**0.00289**	0.007	0.18
cis-1,2-Dichloroethylene	0.841	0.841	0.840	1.260	0.07	0.35
trans-1,2-Dichloroethylene	0.734	**0.160**	**0.161**	**0.277**	0.1	0.7
Trichloroethylene	4.420	1.180	1.150	1.520	0.005	0.076
Vinyl chloride	0.224	0.0461	0.0469	0.0588	0.002	0.01

Bold results indicate analytical results greater than laboratory's method of detection and/or reporting limit.
Shaded results indicate analytical results that exceed the Protected Statewide Standard
Red results indicate analytical results that exceed the Non-Protected Statewide Standard.
NE = Not Established

Table 2.28 – Sample Results Above Laboratory Reporting Limits for Groundwater B-41 (mg/L)

Sample Location	B41 30-34	B41 20-24	B41 20-24 Duplicate	Statewide Standard (Protected)	Statewide Standard (Non-Protected)
Date	05/14/2019	05/14/2019	05/14/2019		
Units	mg/L	mg/L	mg/L	mg/L	mg/L
VOCs Constituents					
trans-1,2-Dichloroethylene	**0.00107**	<0.0010	<0.0010	0.1	0.7
Trichloroethylene	**0.00142**	<0.0010	<0.0010	0.005	0.076

Bold results indicate analytical results greater than laboratory's method of detection and/or reporting limit.
Shaded results indicate analytical results that exceed the Protected Statewide Standard
~~Red~~ results indicate analytical results that exceed the Non-Protected Statewide Standard.
NE = Not Established

Table 2.29 – Sample Results Above Laboratory Reporting Limits for Groundwater B-43 (mg/L)

Sample Location	B43 36-40	B43 26-30	B43 16-20	B43 16-20 Duplicate	B43 6-10	Statewide Standard (Protected)	Statewide Standard (Non-Protected)
Date	05/15/2019	05/15/2019	05/15/2019	05/15/2019	05/15/2019		
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
VOCs Constituents							
Benzene	0.00932	0.00856	0.000942	0.00112	<0.0005	0.005	0.064
1,1-Dichloroethylene	0.0235	0.0207	0.00305	0.00327	<0.0010	0.007	0.18
trans-1,2-Dichloroethylene	0.0276	0.0239	0.00483	0.00527	<0.0010	0.1	0.7
cis-1,2-Dichloroethylene	7.190	6.630	0.710	0.837	0.0631	0.07	0.35
Tetrachloroethylene	0.00429	0.00344	<0.0010	<0.0010	<0.0010	0.005	1.7
1,1,2-Trichloroethane	0.00292	0.00304	<0.0010	<0.0010	<0.0010	0.005	0.061
Trichloroethylene	4.3980	3.870	0.723	0.796	0.101	0.005	0.076
Vinyl chloride	0.319	0.283	0.0277	0.0336	0.00136	0.002	0.01

Bold results indicate analytical results greater than laboratory's method of detection and/or reporting limit.
Shaded results indicate analytical results that exceed the Protected Statewide Standard
~~Red~~ results indicate analytical results that exceed the Non-Protected Statewide Standard.
NE = Not Established

Table 2.30 – Sample Results Above Laboratory Reporting Limits for Groundwater B-44 (mg/L)

Sample Location	B44 36-40	B44 26-30	B44 16-20	B44 16-20 Duplicate	B44 6-10	Statewide Standard (Protected)	Statewide Standard (Non-Protected)
Date	05/15/2019	05/15/2019	05/15/2019	05/15/2019	05/15/2019		
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
VOCs Constituents							
Benzene	<0.005	<0.005	<0.005	**0.00233**	**0.00163**	**0.005**	**0.064**
Carbon disulfide	**0.00121**	**0.00108**	<0.010	<0.001	<0.001	**0.7**	**3.5**
1,1-Dichloroethylene	<0.002	<0.002	<0.020	**0.00406**	**0.00215**	**0.007**	**0.18**
cis-1,2-Dichloroethylene	**0.0375**	**0.0496**	1.420	1.290	0.952	**0.07**	**0.35**
trans-1,2-Dichloroethylene	<0.001	**0.00121**	**0.0146**	**0.0157**	0.762	**0.1**	**0.7**
1,1,2-Trichloroethane	0.132	<0.001	<0.010	<0.001	<0.001	**0.005**	**0.061**
Trichloroethylene	0.132	0.345	0.932	0.850	0.476	**0.005**	**0.076**
Vinyl chloride	<0.001	<0.001	0.0471	**0.00571**	0.0342	**0.002**	**0.01**
Xylenes, Total	<0.003	<0.003	**0.0448**	<0.003	<0.003	**10**	**50**

Bold results indicate analytical results greater than laboratory's method of detection and/or reporting limit.
Shaded results indicate analytical results that exceed the Protected Statewide Standard
~~Red~~ results indicate analytical results that exceed the Non-Protected Statewide Standard.
NE = Not Established

Table 2.31 – Sample Results Above Laboratory Reporting Limits for Groundwater B-45 (mg/L)

Sample Location	B45 26-30	B45 16-20	B45 16-20 Duplicate	Statewide Standard (Protected)	Statewide Standard (Non-Protected)
Date	05/14/2019	05/14/2019	05/14/2019		
Units	mg/L	mg/L	mg/L	mg/L	mg/L
VOCs Constituents					
cis-1,2-Dichloroethylene	0.00122	0.00392	0.00383	0.07	0.35
Trichloroethylene	0.00902	0.0374	0.0355	0.005	0.076

Bold results indicate analytical results greater than laboratory's method of detection and/or reporting limit.
Shaded results indicate analytical results that exceed the Protected Statewide Standard
~~Red~~ results indicate analytical results that exceed the Non-Protected Statewide Standard.
NE = Not Established

Table 2.32 – Sample Results Above Laboratory Reporting Limits for Groundwater B-46 (mg/L)

Sample Location	B46 55-59	B46 45-49	B46 35-39	B45 25-29	B45 25-29 Duplicate	Statewide Standard (Protected)	Statewide Standard (Non-Protected)
Date	05/15/2019	05/15/2019	05/15/2019	05/15/2019	05/15/2019		
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
VOCs Constituents							
cis-1,2-Dichloroethylene	0.0373	0.0409	0.156	0.0496	0.0275	0.07	0.35
trans-1,2-Dichloroethylene	0.00134	0.00114	0.00130	<0.0010	<0.0010	0.1	0.7
Trichloroethylene	0.264	0.281	0.310	0.118	0.0921	0.005	0.076

Bold results indicate analytical results greater than laboratory's method of detection and/or reporting limit.
Shaded results indicate analytical results that exceed the Protected Statewide Standard
~~Red~~ results indicate analytical results that exceed the Non-Protected Statewide Standard.
NE = Not Established

Table 2.33 – Sample Results Above Laboratory Reporting Limits for Groundwater B-47 (mg/L)

Sample Location	B47 54-58	B47 44-48	B47 34-38	B47 34-38 Duplicate	B47 24-28	Statewide Standard (Protected)	Statewide Standard (Non-Protected)
Date	05/15/2019	05/15/2019	05/15/2019	05/15/2019	05/15/2019		
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
VOCs Constituents							
Benzene	**0.000535**	**0.000535**	<0.00050	<0.00050	<0.00050	0.005	0.064
cis-1,2-Dichloroethylene	**0.291**	**0.167**	**0.0809**	**0.0811**	**0.0259**	0.07	0.35
trans-1,2-Dichloroethylene	**0.0595**	**0.0255**	**0.00898**	**0.00103**	**0.00271**	0.1	0.7
Trichloroethylene	0.191	**0.0724**	0.0939	0.0778	**0.0295**	0.005	0.076
Vinyl chloride	**0.00717**	**0.00514**	**0.00161**	**0.00134**	<0.0010	0.002	0.01

Bold results indicate analytical results greater than laboratory's method of detection and/or reporting limit.
Shaded results indicate analytical results that exceed the Protected Statewide Standard
~~Red~~ results indicate analytical results that exceed the Non-Protected Statewide Standard.
NE = Not Established

Table 2.34– Sample Results Above Laboratory Reporting Limits for Groundwater B-48, B-49 and MW-1 through MW-8 (mg/L)

Sample Location	MW-1	MW-1 Duplicate	MW-2R	MW-3	MW-4	MW-5	MW-6	MW-7R	MW-8	B48	B49	Statewide Standard (Protected)	Statewide Standard (Non-Protected)
Date	05/22/19	05/22/19	06/20/19	05/22/19	05/15/19	05/15/19	05/15/19	05/22/19	05/22/19	05/22/19	05/22/19		
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
VOCs Constituents													
Acetone	**0.0193**	**0.017**	**<20**	**<0.010**	<0.500	<0.010	<0.010	<0.010	<0.010	<0.010	<0.010	**6.3**	**32**
Benzene	**0.000706**	**0.000799**	< 0.004	**<0.0050**	<0.025	<0.00050	<0.0010	<0.0010	<0.0010	<0.0005	<0.0005	**0.005**	**0.064**
n-Butylbenzene	**0.00486**	**0.00676**	**<2.0**	**<0.0010**	<0.050	<0.0010	<0.0010	<0.0010	<0.0010	<0.001	<0.001	**0.35**	**1.8**
sec-Butylbenzene	**0.00281**	**0.00333**	**<2.0**	**<0.0010**	<0.050	<0.0010	<0.0010	<0.0010	<0.0010	<0.001	<0.001	**NA**	**NA**
cis-1,2-Dichloroethylene	**0.00222**	**0.00188**	2.172	**<0.0010**	4.0	**0.00363**	<0.0010	<0.0010	**0.0416**	<0.001	<0.001	**0.07**	**0.35**
Ethylbenzene	**0.00923**	**0.0119**	0.0821	**<0.0010**	<0.050	<0.0010	<0.0010	<0.0010	<0.0010	<0.001	<0.001	**0.7**	**3.5**
Hexane	**0.0213**	**0.0266**	**<2.0**	**<0.0010**	<0.050	<0.0010	<0.0010	<0.0010	<0.0010	<0.001	<0.001	**0.42**	**2.1**
Isopropylbenzene	**0.00314**	**0.00401**	**<2.0**	**<0.0010**	<0.001	<0.0010	<0.0010	<0.0010	**0.00108**	<0.001	<0.001	**0.7**	**3.5**
p-Isopropyltoluene	**0.00126**	**0.00146**	**<2.0**	**<0.0010**	<0.050	<0.0010	<0.0010	<0.0010	<0.0010	<0.001	<0.001	**NA**	**NA**
N-Propylbenzene	**0.00866**	**0.0114**	**<2.0**	**0.0295**	<0.001	<0.0010	<0.0010	<0.0010	<0.0010	<0.001	<0.001	**3.4**	**17**
Toluene	**0.00103**	**0.00126**	10.556	<0.0010	<0.050	<0.0010	<0.0010	<0.0010	**0.135**	<0.001	<0.001	**1.0**	**5.0**
Trichloroethylene	<0.0010	<0.0010	3.514	**0.00351**	0.358	**0.0064**	<0.0010	<0.0010	**0.0039**	**0.0236**	**0.00394**	**0.005**	**0.076**
1,2,4-Trimethylbenzene	**0.00125**	**0.00152**	**<2.0**	<0.0010	<0.250	<0.0010	<0.0010	<0.0010	<0.0010	<0.001	<0.001	**0.07**	**0.35**
Vinyl chloride	<0.0010	<0.0010	0.0368	<0.0010	0.0912	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	<0.0010	**0.002**	**0.01**
Xylenes, Total	<0.0030	**<0.0030**	0.2105	<0.0030	<0.091	<0.0030	<0.0030	<3.0	<0.0010	<0.003	<0.001	**10**	**50**

Bold results indicate analytical results greater than laboratory's method of detection and/or reporting limit.
Shaded results indicate analytical results that exceed the Protected Statewide Standard
Red results indicate analytical results that exceed the Non-Protected Statewide Standard.
NE = Not Established

Table 2.35 – Sample Results Above Laboratory Reporting Limits for Groundwater MW-2R/SB (mg/L)

Sample Location	MW-2R/SB 19-23	MW-2R/SB 29-33	MW-2R/SB 39-43	MW-2R/SB 49-53 Duplicate	MW-2R/SB 49-53	Statewide Standard (Protected)	Statewide Standard (Non-Protected)
Date	06/18/2019	06/18/2019	06/18/2019	06/18/2019	06/18/2019		
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
VOCs Constituents							
Trichloroethylene	0.379	3.514	0.724	1.070	1.068	**0.005**	**0.076**
1,1-Dichloroethylene	<0.004	<0.004	<0.004	<0.001	<0.004	**0.007**	**0.18**
cis-1,2-Dichloroethylene	0.256	2.172	0.481	0.350	0.375	**0.07**	**0.35**
trans-1,2-Dichloroethylene	<0.004	**0.0662**	**0.0378**	**0.0547**	**0.062**	**0.1**	**0.7**
Vinyl chloride	<0.002	**0.036**	<0.002	**0.00912**	<0.002	**0.002**	**0.01**
Tetrachloroethene	NA	NA	NA	**0.00146**	NA	**0.005**	**1.7**
Carbon tetrachloride	NA	NA	NA	**0.00280**	NA	**0.05**	**44**
Benzene	<0.004	<0.004	<0.004	**0.000965**	<0.004	**0.005**	**0.064**
Toluene	10.556	1.215	**0.951**	**0.0271**	**0.0297**	**1**	**5**
Ethylbenzene	**0.0821**	**0.0047**	<0.004	<0.001	<0.004	**0.7**	**3.5**
Xylenes (omp)	**0.211**	**0.0129**	<0.012	<0.003	<0.012	**10**	**50**

Bold results indicate analytical results greater than laboratory's method of detection and/or reporting limit.
Shaded results indicate analytical results that exceed the Protected Statewide Standard
Red results indicate analytical results that exceed the Non-Protected Statewide Standard.
NE = Not Established
NA=Not Analyzed

Table 2.36 – Sample Results Above Laboratory Reporting Limits for Groundwater B-50 (mg/L)

Sample Location	B50 22-26	B50 32-36	B50 42-46	B50 52-56	Statewide Standard (Protected)	Statewide Standard (Non-Protected)
Date	06/18/2019	06/18/2019	06/18/2019	06/18/2019		
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
VOCs Constituents						
Trichloroethylene	<0.004	<0.004	<0.004	<0.004	**0.005**	**0.076**
1,1-Dichloroethylene	<0.004	<0.004	<0.004	<0.004	**0.007**	**0.18**
cis-1,2-Dichloroethylene	<0.004	<0.004	<0.004	<0.004	**0.07**	**0.35**
trans-1,2-Dichloroethylene	<0.004	<0.004	<0.004	<0.004	**0.1**	**0.7**
Vinyl chloride	<0.002	<0.002	<0.002	<0.002	**0.002**	**0.01**
Benzene	<0.004	<0.004	<0.004	<0.004	**0.005**	**0.064**
Toluene	<0.004	<0.004	<0.004	<0.004	**1**	**5**
Ethylbenzene	<0.004	<0.004	<0.004	<0.004	**0.7**	**3.5**
Xylenes (omp)	< 0.012	< 0.012	< 0.012	< 0.012	**10**	**50**

Bold results indicate analytical results greater than laboratory's method of detection and/or reporting limit.
Shaded results indicate analytical results that exceed the Protected Statewide Standard
~~Red~~ results indicate analytical results that exceed the Non-Protected Statewide Standard.
NE = Not Established

Table 2.37– Sample Results Above Laboratory Reporting Limits for Groundwater B-51 (mg/L)

Sample Location	B51 18-22	B51 28-32	B51 38-42	B51 48-52	B51 58-62	Statewide Standard (Protected)	Statewide Standard (Non-Protected)
Date	06/18/2019	06/18/2019	06/18/2019	06/18/2019	06/18/2019		
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
VOCs Constituents							
Trichloroethylene	<0.004	<0.004	<0.004	<0.004	<0.004	**0.005**	**0.076**
1,1-Dichloroethylene	<0.004	<0.004	<0.004	<0.004	<0.004	**0.007**	**0.18**
cis-1,2-Dichloroethylene	<0.004	<0.004	<0.004	<0.004	<0.004	**0.07**	**0.35**
trans-1,2-Dichloroethylene	<0.004	<0.004	<0.004	<0.004	<0.004	**0.1**	**0.7**
Vinyl chloride	<0.002	<0.002	<0.002	<0.002	<0.002	**0.002**	**0.01**
Benzene	<0.004	<0.004	<0.004	<0.004	<0.004	**0.005**	**0.064**
Toluene	<0.004	<0.004	<0.004	<0.004	<0.004	**1**	**5**
Ethylbenzene	<0.004	<0.004	<0.004	<0.004	<0.004	**0.7**	**3.5**
Xylenes (omp)	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	**10**	**50**

Bold results indicate analytical results greater than laboratory's method of detection and/or reporting limit.
Shaded results indicate analytical results that exceed the Protected Statewide Standard
~~Red~~ results indicate analytical results that exceed the Non-Protected Statewide Standard.
NE = Not Established

Table 2.38 – Sample Results Above Laboratory Reporting Limits for Groundwater B-52 (mg/L)

Sample Location	B52 27-31	B52 37-41	B52 47-51	Statewide Standard (Protected)	Statewide Standard (Non-Protected)
Date	06/18/2019	06/18/2019	06/18/2019		
Units	mg/L	mg/L	mg/L	mg/L	mg/L
VOCs Constituents					
Trichloroethylene	<0.004	<0.004	<0.004	**0.005**	**0.076**
1,1-Dichloroethylene	<0.004	<0.004	<0.004	**0.007**	**0.18**
cis-1,2-Dichloroethylene	<0.004	<0.004	<0.004	**0.07**	**0.35**
trans-1,2-Dichloroethylene	<0.004	<0.004	<0.004	**0.1**	**0.7**
Vinyl chloride	<0.002	<0.002	<0.002	**0.002**	**0.01**
Benzene	<0.004	<0.004	<0.004	**0.005**	**0.064**
Toluene	<0.004	<0.004	<0.004	**1**	**5**
Ethylbenzene	<0.004	<0.004	<0.004	**0.7**	**3.5**
Xylenes (omp)	< 0.012	< 0.012	< 0.012	**10**	**50**

Bold results indicate analytical results greater than laboratory's method of detection and/or reporting limit.
Shaded results indicate analytical results that exceed the Protected Statewide Standard
~~Red~~ results indicate analytical results that exceed the Non-Protected Statewide Standard.
NE = Not Established

Table 2.39 – Sample Results Above Laboratory Reporting Limits for Groundwater B-53 (mg/L)

Sample Location	B53 14-18	B53 24-28 Duplicate	B53 34-38	B53 44-48	B53 54-58	B53 64-68	Statewide Standard (Protected)	Statewide Standard (Non-Protected)
Date	06/18/2019	06/18/2019	06/18/2019	06/18/2019	06/18/2019	06/18/2019		
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
VOCs Constituents								
Trichloroethylene	<0.004	<0.004	<0.004	<0.004	**0.0018**	<0.004	**0.005**	**0.076**
1,1-Dichloroethylene	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	**0.007**	**0.18**
cis-1,2-Dichloroethylene	<0.004	<0.004	<0.004	**0.002**	**0.0037**	<0.004	**0.07**	**0.35**
trans-1,2-Dichloroethylene	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	**0.1**	**0.7**
Vinyl chloride	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	**0.002**	**0.01**
Benzene	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	**0.005**	**0.064**
Toluene	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	**1**	**5**
Ethylbenzene	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	**0.7**	**3.5**
Xylenes (omp)	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	**10**	**50**

Bold results indicate analytical results greater than laboratory's method of detection and/or reporting limit.
Shaded results indicate analytical results that exceed the Protected Statewide Standard
~~Red~~ results indicate analytical results that exceed the Non-Protected Statewide Standard.
NE = Not Established

Table 2.40 – Sample Results Above Laboratory Reporting Limits for Groundwater B-54 (mg/L)

Sample Location	B54 10-14	B54 20-24	B54 30-34	B54 40-44	B54 50-54	Statewide Standard (Protected)	Statewide Standard (Non-Protected)
Date	06/19/2019	06/19/2019	06/19/2019	06/19/2019	06/19/2019		
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
VOCs Constituents							
Trichloroethylene	**0.0042**	**0.0104**	**0.101**	**0.44**	**0.569**	**0.005**	**0.076**
1,1-Dichloroethylene	<0.004	<0.004	<0.004	<0.004	<0.004	**0.007**	**0.18**
cis-1,2-Dichloroethylene	**0.0026**	**0.0084**	**0.0632**	**0.289**	**0.343**	**0.07**	**0.35**
trans-1,2-Dichloroethylene	<0.004	<0.004	<0.004	**0.0077**	**0.0038**	**0.1**	**0.7**
Vinyl chloride	<0.002	<0.002	<0.002	<0.002	<0.002	**0.002**	**0.01**
Benzene	<0.004	<0.004	<0.004	<0.004	<0.004	**0.005**	**0.064**
Toluene	<0.004	<0.004	<0.004	<0.004	<0.004	**1**	**5**
Ethylbenzene	<0.004	<0.004	<0.004	<0.004	<0.004	**0.7**	**3.5**
Xylenes (omp)	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	**10**	**50**

Bold results indicate analytical results greater than laboratory's method of detection and/or reporting limit.
Shaded results indicate analytical results that exceed the Protected Statewide Standard
~~Red~~ results indicate analytical results that exceed the Non-Protected Statewide Standard.
NE = Not Established

Table 2.41 – Sample Results Above Laboratory Reporting Limits for Groundwater B-56 (mg/L)

Sample Location	B56 7-11	B56 17-21	B56 27-31	B56 37-41	B56 47-51	B56 47-51 Duplicate	Statewide Standard (Protected)	Statewide Standard (Non-Protected)
Date	06/19/2019	06/19/2019	06/19/2019	06/19/2019	06/19/2019	06/19/2019		
Units	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L	mg/L
VOCs Constituents								
Trichloroethylene	**0.0098**	**0.0051**	**0.0432**	0.317	0.291	0.299	**0.005**	**0.076**
1,1-Dichloroethylene	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	**0.007**	**0.18**
cis-1,2-Dichloroethylene	<0.004	<0.004	**0.0726**	**0.035**	**0.0352**	**0.0362**	**0.07**	**0.35**
trans-1,2-Dichloroethylene	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	**0.1**	**0.7**
Vinyl chloride	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002	**0.002**	**0.01**
Benzene	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	**0.005**	**0.064**
Toluene	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	**1**	**5**
Ethylbenzene	<0.004	<0.004	<0.004	<0.004	<0.004	<0.004	**0.7**	**3.5**
Xylenes (omp)	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	< 0.012	**10**	**50**

Bold results indicate analytical results greater than laboratory's method of detection and/or reporting limit.
Shaded results indicate analytical results that exceed the Protected Statewide Standard
~~Red~~ results indicate analytical results that exceed the Non-Protected Statewide Standard.
NE = Not Established

Table 2.42 – Sample Results Above Laboratory Reporting Limits for Groundwater B-57 (mg/L)

Sample Location	B57 6-10	B57 15-19	B57 25-29	Statewide Standard (Protected)	Statewide Standard (Non-Protected)
Date	06/20/2019	06/20/2019	06/20/2019		
Units	mg/L	mg/L	mg/L	mg/L	mg/L
VOCs Constituents					
Trichloroethylene	<0.004	**0.0038**	**0.0072**	**0.005**	**0.076**
1,1-Dichloroethylene	<0.004	<0.004	<0.004	**0.007**	**0.18**
cis-1,2-Dichloroethylene	<0.004	<0.004	**0.0025**	**0.07**	**0.35**
trans-1,2-Dichloroethylene	<0.004	<0.004	<0.004	**0.1**	**0.7**
Vinyl chloride	<0.002	<0.002	<0.002	**0.002**	**0.01**
Benzene	<0.004	<0.004	<0.004	**0.005**	**0.064**
Toluene	**0.0099**	**0.0105**	**0.0088**	**1**	**5**
Ethylbenzene	<0.004	<0.004	<0.004	**0.7**	**3.5**
Xylenes (omp)	< 0.012	< 0.012	< 0.012	**10**	**50**

Bold results indicate analytical results greater than laboratory's method of detection and/or reporting limit.
Shaded results indicate analytical results that exceed the Protected Statewide Standard
~~Red~~ results indicate analytical results that exceed the Non-Protected Statewide Standard.
NE = Not Established